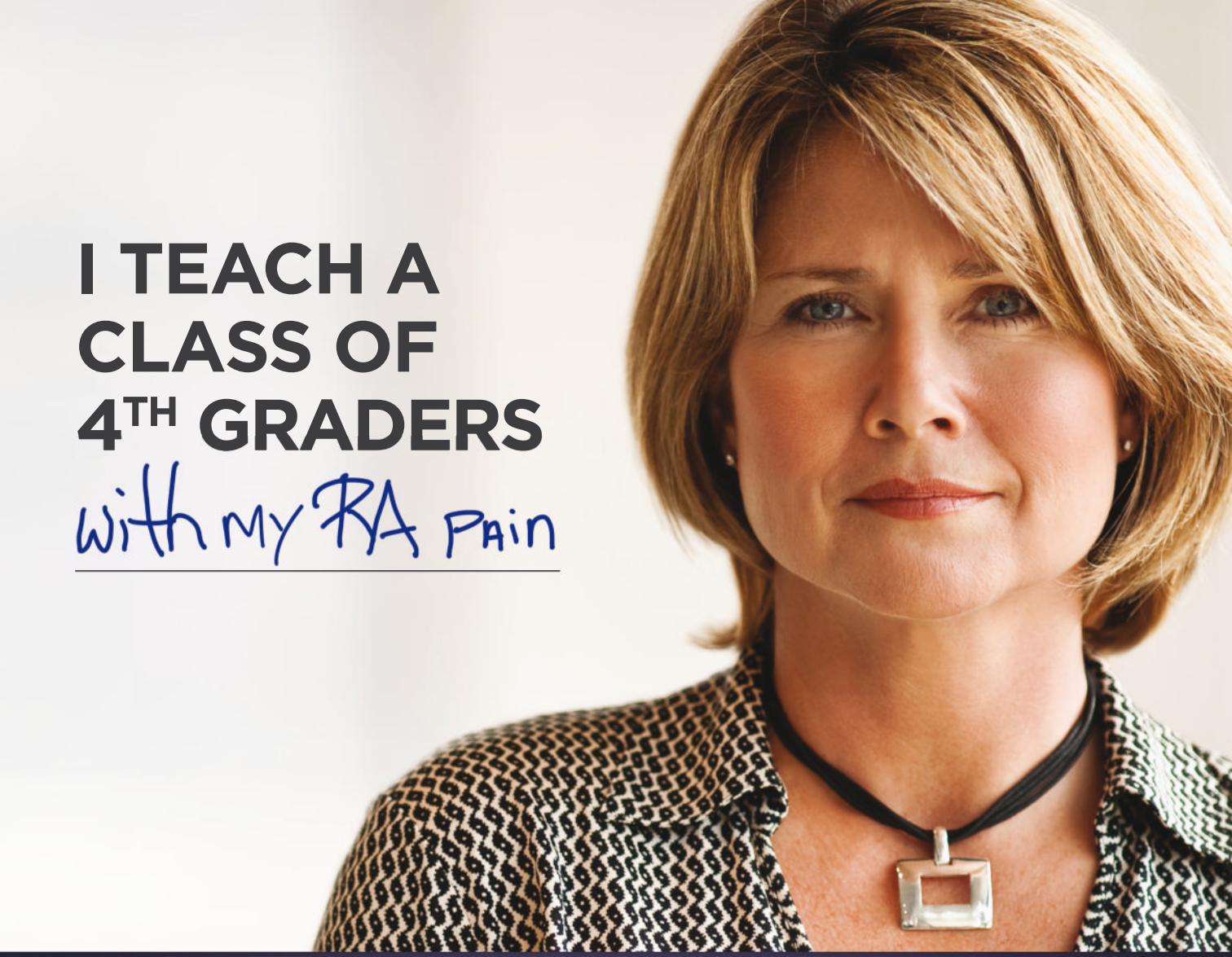
DECEMBER 14, 2015

TIME

The Genius of *Star Wars*

By Lev Grossman

time.com



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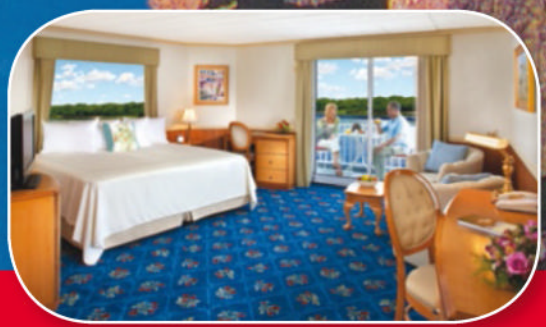

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TIME
VOL. 186, NO. 24 | 2015

Cover Story

Very Soon, Right Here in the Milky Way

In *The Force Awakens,* which hits theaters Dec. 18, J.J. Abrams gives new life to that old *Star Wars* magic. TIME watched him do it **By Lev Grossman** **56**

Fans in Times Square in 1983 await the premiere of Return of the Jedi

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STAR WARS: DAVE PICKOFF—AP; IN THE HEART OF THE SEA: WARNER BROS.

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Two new voices on the arts

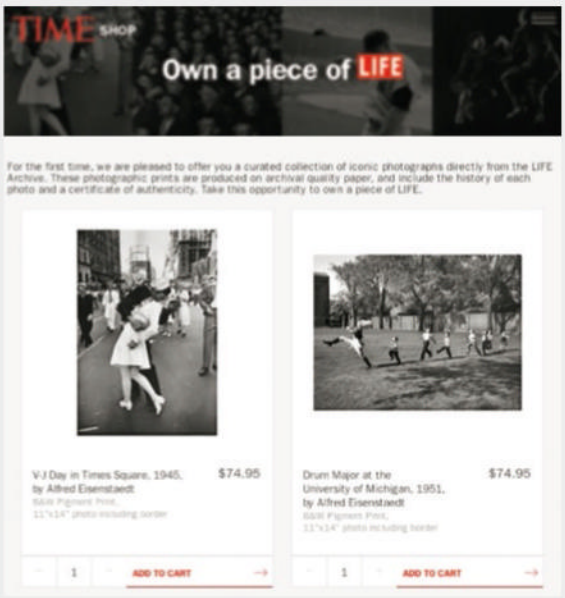
THE ROLE OF CULTURE CRITIC HAS NEVER BEEN more vital, now that we can watch, read or listen to just about anything at any time, anywhere. So it is with special pleasure that I introduce two new TIME critics. Covering movies, Stephanie Zacharek comes to us from the *Village Voice*, where she was a finalist for this year's Pulitzer Prize for criticism. Stephanie brings to these pages and to TIME.com a sharp critical sensibility combined with a warm and helpful voice. "What I love most about movies, and about writing criticism," she says, "is the excitement of facing something new each week. Even in a terrible movie, you might see an actor doing something spectacular. The challenge, and the joy, of writing about movies is to be alive to what's in front of you at all times."

Leading our coverage of television will be Daniel D'Addario, who joined our staff last year and has been writing features on subjects ranging from Atticus Finch's newfound bigotry in Harper Lee's *Go Set a Watchman* to the "perfect marriage" between Jon Stewart and HBO. "Television is the most exciting field to cover right now because it's changing so rapidly," Dan observes. "In the past few years alone, services like Netflix and Amazon have become awards magnets, while broadcast TV has become vastly more representative of America's diversity. What writer wouldn't want to follow an art form and an industry this unpredictable?"

THIS WEEK ALSO MARKS THE LAUNCH OF *TIME*'S new online shop (shop.time.com), designed to make both your decorating and gift giving easier this holiday season. We have created high-quality prints of 12 of the most beloved photos from the LIFE picture collection, including Alfred Eisenstaedt's *V-J Day in Times Square* and Dmitri Kessel's *Eiffel Tower, 1948*.

Nancy Gibbs

Nancy Gibbs, EDITOR



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TIME's Radhika Jones *(right)*, editor of this week's *Star Wars* story, as a Stormtrooper in the early 1980s

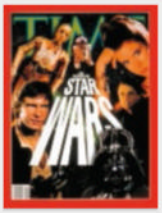
Back in TIME

STAR WARS

When the first Star Wars *hit theaters, TIME called it "a grand and glorious film that may well be the smash hit of 1977, and certainly is the best movie of the year so far"—but we had no idea what a phenomenon it would become. Here, a brief history of the franchise's cultural evolution, as told through TIME covers. Read the full stories at time.com/vault.*

May 19, 1980

May 23, 1983



Feb. 10, 1997

April 26, 1999

April 29, 2002

May 9, 2005

GIBBS: PETER HAPAK FOR TIME; STAR WARS: COURTESY OF RADHIKA JONES

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What you said about ...

FIGHTING ISIS AFTER PARIS TIME's Nov. 30/Dec. 7 cover story, which explored the failures of the U.S. and NATO to deter ISIS, drew many reader comments—in particular regarding the story's portrayal of President Obama as too passive. Although some agreed with writer David Von Drehle's assessment, others, like John Pearson of La Crescenta, Calif., said it's unfair to criticize Obama for having insufficient "cheerleading skills." And where's the U.N.? asked Rick Ferrell of Centreville, Md.: "They remain silent, and none of the world's leaders point this out." But ISIS is a tricky enemy—so much so that Digamber Borgaonkar of Greenville, Del., found the story's comparisons to WW II inapt. While the Allies fought a physical entity, he wrote, "ISIS is an ideology." Still, Marcia Klotz of Tucson, Ariz., holds out hope for diplomacy. "Given the impossibility of military victory, as this article so thoughtfully demonstrates," she wrote, "I would have liked to hear more about the prospects of a negotiated peaceful solution."

> 'ISIS is just the tip of an iceberg that covers most of the world.'
>
> **PETER BAXTER**, Brighton, U.K.

> 'Thanks for the article on student loans—it really hit close to home for me and many other young adults.'
>
> **LOYAL COSHWAY**, Columbus, Ohio

STUDENT LOANS Haley Sweetland Edwards' dive into the Obama Administration's efforts to address the $1.3 trillion college-student debt crisis prompted warnings that even new plans may be, as Tiffany Naylor of Clinton, N.C., put it, "too good to be true." Others worried that plans involving debt forgiveness could end up harming nonstudents: "As I understand it, when the federal government forgives debt, we, the taxpayer, are on the hook for the debt," wrote Carl Fedako of Bloomsburg, Pa.

HEALTHY EATING Our list of the healthiest foods of all time has gained 50 new items, from standbys like greens to surprises like sauerkraut—with recipes for all. See them at time.com/50-healthy.

1. Lemons for vitamin C; **2.** Tahini for iron; **3.** Apples for fiber; **4.** Artichokes for antioxidants; **5.** Spelt for niacin; **6.** Figs for vitamin A

SETTING THE RECORD STRAIGHT ▸ In "The Man Who Brought Down Volkswagen" (Nov. 30/Dec. 7) we misidentified one of the Volkswagen models tested by Dan Carder that uses the selective catalytic reduction emissions regulation system. It is the Passat.

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HEALTHY EATING: DANNY KIM FOR TIME

'Addressing climate change should not deny the legitimate needs of developing countries.'

CHINESE PRESIDENT XI JINPING, during international climate talks in Paris

Amazon
It sold a record number of its own devices on Black Friday and over the holiday weekend

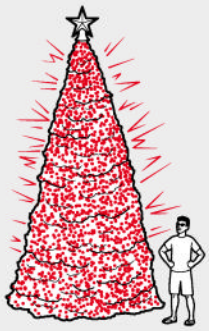
The Amazon
Half the rain forest's tree species may be endangered

'MY MIND CAN HANDLE THE GRIND, BUT MY BODY KNOWS IT'S TIME TO SAY GOODBYE.'

KOBE BRYANT, basketball star, announcing his retirement after 20 seasons in the NBA, all of them with the Los Angeles Lakers

518,838

Number of lights on an artificial Christmas tree in Australia, setting a new Guinness World Record



700,000

Number of lung-cancer deaths expected per year in China by 2020, as the country deals with pollution and rising smoking rates

'We should not have to live in a world where accessing health care includes safe rooms and bullet-proof glass.'

VICKI COWART, CEO of Planned Parenthood of the Rocky Mountains, after a shooting at one of the group's clinics in Colorado left three dead and nine others injured

'We want you to grow up in a world better than ours today.'

MARK ZUCKERBERG, Facebook CEO, and his wife Priscilla Chan, announcing in an open letter to their newborn daughter that they will donate 99% of their Facebook shares—currently worth about $45 billion—over the course of their lives for philanthropic purposes

$110,000

Value of 40,000 lb. of beef (18,000 kg) stolen from a Pennsylvania meat plant

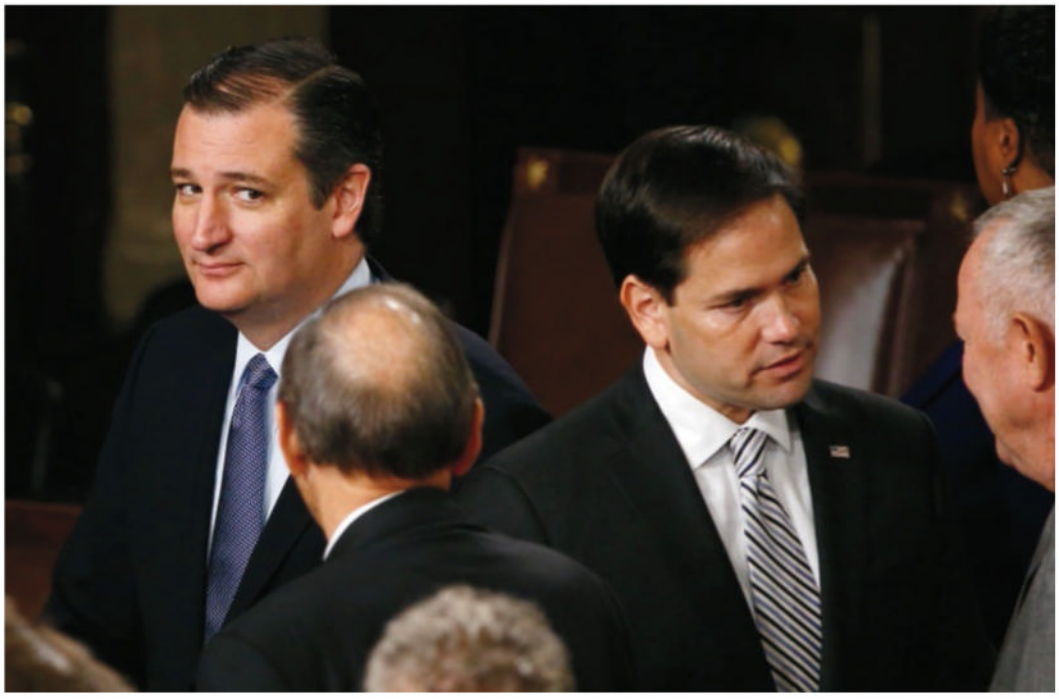
'We are truly saddened by this incident.'

TURKISH PRESIDENT RECEP TAYYIP ERDOGAN, after his country's air force shot down a Russian warplane it said had violated its airspace; Russia denies that, and has placed surface-to-air missiles in Syria

XI, ZUCKERBERG: GETTY IMAGES; AP (3); ILLUSTRATIONS BY BROWN BIRD DESIGN FOR TIME

The Brief

'MORE THAN FOUR YEARS INTO THE WAR IN SYRIA, THE U.S. STILL HAS NO CREDIBLE PLAN TO DEFEAT ISIS.' —PAGE 19



Cruz, left, and Rubio have long held each other in low esteem. Their primary fight is personal

REUTERS

POLITICS

Marco vs. Ted: Inside the rivalry reshaping the GOP

By Philip Elliott and Zeke J. Miller

A BITTER RIVALRY BETWEEN TWO freshman Senators has become the most riveting subplot in the race for the Republican presidential nomination. For weeks, the sniping has only grown louder. When Florida Senator Marco Rubio says Texas Senator Ted Cruz voted on budgets to "hurt the military," Cruz fires back that Rubio embraces "military adventurism," including standing with Hillary Clinton in the strategy to topple Libyan dictator Muammar Gaddafi. When Cruz attacks Rubio for working with Democrats on a path to citizenship for immigrants in the country illegally, Rubio's aides are quick to contend that Cruz also supported a different type of legal status for the same group.

"There are Republicans, including Senator Cruz, that have voted to weaken those programs," Rubio says of the National Security Agency's domestic-spying powers. Cruz jokes at events that supporters should leave their cell phones on "because I want President Obama to hear every word we say."

So it has gone, day after day, and so it will continue, with both men jockeying for position in early polls with political amateurs Donald Trump and Ben Carson. The feud between Cruz and Rubio represents a battle for the soul of the Grand Old Party and, perhaps more important, its future. In the 2016 Republican field, no two candidates share so similar a background—both freshman Senators with Cuban and Tea Party roots—yet have such divergent visions for the GOP.

Their disagreement begins with

PHOTOGRAPH BY JAMES LAWLER DUGGAN

opposing prescriptions to fix what ails their party: Rubio wants to reshape the electorate with an appeal to Hispanic and younger voters, while Cruz wants to energize mostly white evangelical Christians, whom he contends have stayed home out of disgust with the two previous nominees. You could say one represents the ego of the Tea Party and the other its id.

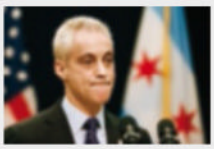
The rivalry has been years in the making. When Cruz was trying to win the Texas nomination for the Senate in 2012, he repeatedly sought the endorsement of Rubio, a newly elected star who'd trod the same anti-Establishment path two years earlier in Florida. But the charismatic Floridian withheld his imprimatur and dodged meetings with the confident Texan at the urging of his fellow Republicans. Cruz has not forgotten the slight. When given the chance for retribution, Cruz took it, leading the opposition in 2013 against Rubio's work on a comprehensive immigration bill, which earned the White House's backing and passed the Senate, only to die in the House.

The two men's personal styles bear no resemblance to each other. When Rubio arrived in Washington, he set out to learn how the Senate works, linking up with reform-minded leaders and defense hawks like Senator John McCain of Arizona, only to find himself dragged into the constant fight against his own party. He kept his head down, busied himself in committee meetings and sought respect from his colleagues by pitching in when asked.

Cruz, by contrast, went to Washington to plot the destruction of the city's Establishment power networks. A self-appointed hell-raiser, he threw tantrums, routinely insulted his party's leadership and was shameless in promoting his own brand. Senators tried to bring him into the fold, electing him vice chair of their campaign committee, only to see him raise cash for candidates who were challenging incumbent colleagues, prompting his ouster. His Senate critics—and there are many—say he seldom spoke up at Republicans' weekly lunches but had no problem leaving the ornate dining room off the Senate floor and making a beeline to reporters. Tables were barely cleared of china before it was clear Cruz was not on the team.

Rubio, the son of a bartender, and Cruz, the son of a political refugee, have shown they can be gritty—and petty—in their ambition. Cruz enjoys the upper hand in building a political machine and recruiting fervent followers, while Rubio's potential is just starting to materialize. The personal animus between the two colors so much about their interactions, and both seem likely to be among the last contenders chasing the nomination. The stakes for this sparring are high. But so is the potential to reshape American politics. ◻

TRENDING



POLICING
Chicago mayor Rahm Emanuel **asked police chief Garry McCarthy to resign** Dec. 1, after protests following the fatal police shooting of black teenager Laquan McDonald in October 2014. Officer Jason Van Dyke was charged with the teen's murder on Nov. 24.

ELECTIONS
More than **900 women are running for public office in Saudi Arabia's** municipal elections on Dec. 12, the first since the late King Abdullah granted women the right to vote and run in local elections in 2011. Some women's-rights activists say they have been barred from taking part.

ENERGY
The American Automobile Association says drivers paid the **lowest gas prices since 2008** this Thanksgiving and predicts the national average per gallon will fall below $2 before the end of December, because of cheap oil and increased refinery output.

BIG QUESTION

Where do people still hunt whales?

Japan's whaling fleet set sail on Dec. 1 in defiance of a 2014 U.N. order to cease the practice. It's not the only place to bypass the International Whaling Commission's 1986 ban on commercial operations. —*Naina Bajekal*

NORWAY
Respected the IWC ban until 1993, then used a loophole to declare itself exempt. Oslo has since lifted its annual kill quota from 425 in 1996 to over 1,200 today, though fishermen usually catch only half that many.

ICELAND
Declared itself exempt from the IWC moratorium in 2004. Iceland's quota allows for the export of 154 endangered fin whales to Japan—though demand for the meat is scarce—and over 200 minke whales for domestic consumption.

GREENLAND
Has historically been given permission for its native Inuit to hunt whales for subsistence needs, currently set at 207 kills per year. Critics say the quota is too high, so the surplus will continue to be sold commercially and to tourists.

ALASKA
Indigenous peoples living along Alaska's coast have been hunting bowhead whales for thousands of years. The Alaskan natives were set an overall quota of 306 bowheads from 2013 to 2018; catches are shared among the whole community.

DIGITS

10.3%

Drop in U.S. sales at brick-and-mortar stores on Black Friday, down from $11.6 billion in 2014 to $10.4 billion this year; online sales on the same day leaped 14% from last year, bringing in a total of $2.72 billion

EMANUEL: SIPA; ELECTIONS, GAS: GETTY IMAGES; WHALING, LE PEN: AP; ILLUSTRATIONS BY MARTIN GEE FOR TIME

PAPAL MASSES Pope Francis waves to crowds on Nov. 30 at the Koudoukou school in Bangui, the capital of Central African Republic, which has been riven by a civil war for nearly three years. At a visit to a mosque, the Pontiff told worshippers that "Christians and Muslims are brothers and sisters." The final stop on the Pope's tour of Africa marked the first time he has visited an active war zone. *Photograph by Gianluigi Guercia—AFP/Getty Images*

SPOTLIGHT

The forces fueling the rise of France's far right

MARINE LE PEN'S FAR-RIGHT NATIONAL Front (FN) party is on course to win two regions in French regional elections on Dec. 6 and Dec. 13, which would complete its transformation from a fringe party to a major political force. The resurgence of the anti-Europe, anti-immigration FN spells trouble for President François Hollande's Socialist Party and former President Nicolas Sarkozy's center-right Republicans ahead of 2017's presidential elections. Here's what's driving the conservative upswing:

ISLAMIST EXTREMISM In the wake of the Nov. 13 attacks by ISIS that left 130 dead in Paris, the FN's anti-Islam rhetoric helped it surge in the polls. "France and the French are no longer safe," Le Pen said, calling for borders to be closed and migrants deported, and blaming Hollande's government for failing to protect France.

MIGRANT CRISIS More than 878,000 migrants have arrived in Europe this year, raising concerns among the French population that there aren't enough schools, jobs or housing to go around. The FN has tapped into such fears, with Le Pen saying all migrants should be deported, even refugees fleeing war. The party is favored to win the southern region of Marseille-Nice, where many refugees enter France through Italy.

UNPOPULAR LEADERS Hollande consistently polls as the least popular President in recent history, thanks to France's turgid economy. Sarkozy too was a deeply unpopular leader, disliked for his flashy lifestyle. And while the FN hasn't been embraced by the mainstream, Le Pen has softened the party's image, paving the way for a serious challenge to the status quo in 2017. —NAINA BAJEKAL

‹ Le Pen's party is favored to win control of two of France's regions for the first time

DATA

TOMORROW'S TALLEST TOWERS

Saudi Arabia secured funding Nov. 29 to build the world's tallest tower, one of several mammoth skyscrapers in the works:

Jeddah Tower
Saudi Arabia
(projected 3,280 ft.)
To open in 2021

KL118 Tower
Malaysia
(2,113 ft.)
To open in 2019

Signature Tower
Indonesia
(2,093 ft.)
To open in 2021

Wuhan Greenland Center China
(2,087 ft.)
To open in 2018

Ping An Finance Center China
(1,969 ft.)
To open in 2017

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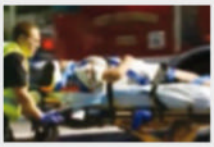


CRIME
Police said at least 14 people were killed in a **shooting in San Bernardino, Calif.,** on Dec. 2. The incident took place at the Inland Regional Center, a facility for people with disabilities. Early reports suggested as many as three shooters.

SURVEILLANCE
On Nov. 28, the NSA **ended the practice of collecting U.S. telephone data in bulk,** exposed by whistle-blower Edward Snowden in 2013. The government must now seek court orders for telecom companies to monitor call records.

CURRENCY
The International Monetary Fund said Nov. 30 that it will **add the Chinese renminbi to its elite group of reserve currencies—** the dollar, euro, pound and yen. The move, effective October 2016, is a symbolic vote of confidence for the world's second biggest economy.

THE RISK REPORT

Six steps to building an ISIS strategy

By Ian Bremmer

MORE THAN FOUR YEARS INTO THE WAR IN Syria, the U.S. still has no credible plan to defeat ISIS. It doesn't help that the players in Syria seem to change every few weeks or that each newcomer has his own list of allies and enemies. But America needs an ISIS strategy—and these steps offer a starting point.

1. **THE U.S. SHOULD CONTINUE** targeted air strikes against ISIS, but under no circumstances should it lead the military campaign in Syria. As in Libya, lead from behind, following Europe's more pragmatic approach. But with ISIS, unlike Libya, don't leave a power vacuum. Focus on ISIS and leave Bashar Assad where he is—at least for now.

2. **THE U.S. SHOULD HELP** establish clear no-fly zones around Syria. This has less to do with ISIS than with reducing the risk of another "incident" between Russia and Turkey—or the U.S. The players in this conflict zone have their own agendas. Even if those agendas can't be perfectly aligned, steps should be taken to ensure they don't collide.

3. **INTENSIFY EFFORTS** to track ISIS funding. That means working with the hacker collective Anonymous, the latest group to join the war on ISIS. If Anonymous is willing to work with governments to attack ISIS's ability to raise cash, draw recruits and hide its plans, seize the opportunity.

4. **ORGANIZE MODERATE** Muslim leaders to find a sustainable solution in Syria. Regional heavyweights like Turkey and Egypt will have their say, but Indonesia, Malaysia and Nigeria can also help.

5. **AMERICA NEEDS** to get the Gulf states in the game. Saudi complacency has allowed ISIS to become the best-equipped and -funded terrorist group in history. The time for official tolerance in these countries for the funding of radicalism has passed.

6. **USE FINANCIAL INCENTIVES** and political pressure to ensure that Iraq's Sunnis have a stake in their country's future by establishing their place within the leadership in Baghdad. Shi'ite militia groups and the Shi'ite-dominated Iraqi army will never fight to the death for Sunni cities. Until Sunni tribal leaders and those who follow them turn on ISIS, the group can't be fully dismantled.

These steps alone won't destroy ISIS. But short of Western boots in another Middle Eastern country, they are the best options. □

QUICK TALK

Karl Rove

You've written a new biography, *The Triumph of William McKinley.* Why should we care about him? Because he is the author of a realigning election that changed America's political system from dysfunctional and brought about an era of durable dominance for his party that lasted 36 years.

What has surprised you most about the 2016 race? How many candidates and how complicated it is and how angry the GOP electorate is at Obama.

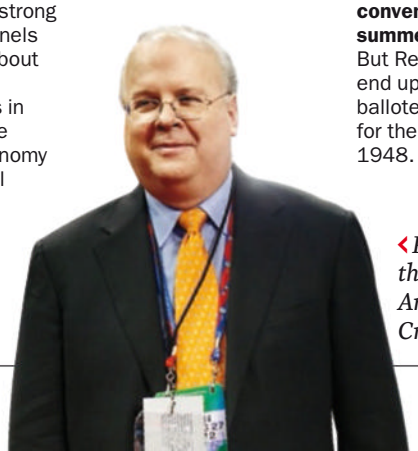
Trump is still ahead after four months. How come? Because he speaks to the angst of blue-collar Republicans who don't care about his specific views, detailed plans or past statements and actions. All they care about is having somebody who appears to be a strong leader who channels their concerns about immigration and America's status in the world and the effect of the economy on their personal circumstances.

Can he win the nomination? I don't think he will. I don't want to say the chances are zero. I think it's going to be difficult for him. The question is who is going to consolidate the not-Trump voters.

Your party has opposed same-sex marriage in past elections. Is it time to change? The issue is settled by the Supreme Court. I'm still a hopeless traditionalist, surrounded by people who I love dearly I would love to see get married. So I'm hopelessly muddled.

Chances for a brokered convention next summer? Not brokered. But Republicans could end up going to a multi-balloted convention for the first time since 1948.

—*Michael Duffy*



‹ Rove co-founded the super PAC American Crossroads

CRIME: NBCLA/REUTERS; NSA: GETTY IMAGES; RENMINBI: KYODO/AP; ROVE: REUTERS

Syrian refugees in the U.S. feel a backlash

By Alex Altman/Dallas

The Sharaas arrived in February, nearly two years after leaving Syria

THE FALLOUT CAUGHT FAEZ AL SHARAA by surprise. Shortly after terrorists attacked Paris, the 28-year-old Syrian refugee found his new life in Texas upended by the politics of national security. More than 30 governors, including the Lone Star State's Greg Abbott, vowed to block the resettlement of new Syrians seeking asylum. "America prides itself on diversity," al Sharaa says in his living room in a Dallas suburb, decorated with a golden plate inscribed with the *shahada,* the Muslim profession of faith. "Some are misinformed, or not informed, by what is going on in Syria."

Al Sharaa decided to flee Syria in 2013 after nearly being killed while walking to work in the southern city of Dara'a. His daily commute was fraught with risk; clashes between President Bashar Assad's forces and antigovernment insurgents had turned his neighborhood into a battlefield. Dissidents were disappearing. Children had been plucked off the streets and tortured.

On that Tuesday morning in Syria, soldiers pursuing a gunman detained al Sharaa, accused him of terrorism and held him at gunpoint with three others. "We felt death upon us," he recalls. Then an old woman barreled into the street, begging the soldiers to spare al Sharaa and his counterparts, saying they were her family members and neighbors. He had never seen the woman before, but the stranger saved his life.

That night, al Sharaa reached out online to a group that smuggles Syrians into Jordan. The next morning, he and his wife Shaza darted through crumbling streets to meet the car that would carry them out of Syria. On the way, a missile crashed into a building mere feet away. "We could have been killed," he says. Two days later, they arrived at the Zaatari refugee camp in Jordan. From there, Shaza's family brought them to Amman, where Faez found a job.

Then they waited. For refugees, the vetting process is often a multiyear odyssey. The Sharaas registered with the U.N. refugee agency and began a set of background checks. At first Sweden seemed like an option. After a third interview, they were told they were headed to Finland. Finally, after nearly two years in limbo, they learned they were destined for Dallas.

They flew to Texas in February. It was al Sharaa's first time on a plane. They landed with a baby daughter, born in Jordan, another on the way and little money or language skills. The U.S., which has admitted 2,200 Syrian refugees since 2011, provides fewer benefits than some European nations, and al Sharaa was daunted by the challenge. "I didn't want to come to America," he says.

Of the more than 4 million Syrians who have fled their homeland, al Sharaa is among the lucky ones. He found a job on the graveyard shift at Walmart, stocking shelves in the frozen-food section.

> 'It shocked me, because America prides itself on diversity.'
>
> **FAEZ AL SHARAA**, on political opposition to admitting more Syrian refugees in the U.S.

He and Shaza are picking up English. Their daughters are healthy and happy; baby Sara, now 4 months, is an American citizen. Neighbors have been welcoming. Faez began to regard the U.S. creed of equality as reality, not just rhetoric.

But with fear of terrorism spreading and solutions in short supply, refugees have become scapegoats, he says, even though they are just seeking sanctuary from violence. Recent polls show that a majority of Americans oppose admitting more Syrian refugees. Gun-toting protesters gathered outside a mosque in a nearby suburb of Dallas. And Republican presidential front runner Donald Trump has promised to deport refugees like al Sharaa if he becomes President.

Six of al Sharaa's family members, fellow refugees seeking asylum, will arrive in Dallas in December over Abbott's objections. The state has sued the U.S. government to stop future resettlement of refugees in Texas, including his family. A few weeks ago, al Sharaa was laying long-term plans for a future in Texas. Now he has a simple message for his leery neighbors. "I want them to know the Syrian people are not terrorists," he says. "We are against ISIS. We don't support them. They are a criminal organization. Syrian citizens are the ones paying the price." □

MICHAEL KIRBY SMITH FOR TIME

We go to the story
so you get the story.

NBC NIGHTLY NEWS
WITH LESTER HOLT

Why Washington is fighting over your financial planner

By Maya Rhodan

THE WAY AMERICANS PLAN FOR RETIREMENT IS ABOUT to change—again. At the urging of President Obama, the Department of Labor is backing a rule that would alter who can offer financial advice on retirement funds. On its face, the idea seems superfluous: the rule, which would go into effect next year, requires that individuals providing advice on retirement savings put their clients' interests ahead of their own.

Isn't that what people hire advisers to do in the first place? "Anyone can call themselves a financial adviser," says David Certner, legislative-policy director at AARP, the lobbying organization for seniors. Many consumers believe all financial advisers operate under uniform codes like doctors or lawyers. "But people don't understand that there are different types, and they can act against your interest and in their own," says Certner.

There are two standards brokers have to adhere to. There's the fiduciary standard, which requires financial advisers—registered investment advisers and those appointed under existing law—to offer financial advice that takes their clients' best interests into consideration. But there's also a less stringent "suitability" standard, which gives advisers leeway to offer advice that works for their client but can also help them earn a higher commission or some other financial incentive. According to the Department of Labor, that loophole causes Americans to lose out on making an additional $17 billion on their investments every year.

The stakes have grown as the nature of retirement has shifted. Over the past four decades, for example, there has been a sharp decrease in the number of employer-provided retirement-benefit plans, or pensions, and a steep rise in the number of employees setting aside their own funds in 401(k) and 403(b) plans and individual retirement accounts, or IRAs.

As a consequence, Americans have grown to rely more heavily on financial advisers and planners who can help them navigate the confusing or stress-inducing process of saving for retirement. According to a survey conducted by the Certified Financial Planners Board, which licenses fiduciary financial planners in the U.S., 40% of Americans now work with a financial adviser to secure their retirement, up from 28% in 2010.

AT THE GARRETT PLANNING NETWORK, a national financial-planning firm, advisers often share stories from clients who found themselves on the receiving end of bad retirement advice. During an exchange last spring, one adviser recalled encountering a woman who was about to retire and had asked a nonfiduciary adviser for advice about her $1 million 401(k) rollover. She was advised to invest in an annuity and a trust, a move that earned her adviser a tidy 7% sales commission. Sheryl Garrett, founder of the Garrett Planning Network, claims her advisers see that kind of behavior all the time.

Under the Department of Labor rule, which is expected to be finalized in early 2016, the standard will shift toward the consumer. Anyone offering financial advice on retirement accounts would be required to adhere to the fiduciary standard. The rule marks the biggest change to the Employee Retirement Income Security Act, which established minimum standards for pension plans, in 40 years.

But many, including Republicans in Congress, argue that the Department of Labor's rule is unworkable and will put unnecessary burdens on small-business owners. Because of how it governs IRAs and employer-provided plans, they argue, the rule would make it hard for small-business owners to help their employees get financial advice. They also say the change will adversely impact lower- and middle-income Americans, the same investors who are the most at risk.

"All sides in this debate agree that advisers should work in their clients' best interests. But Americans' best interest will not be served by a regulatory scheme that directs small businesses and people to advisers too costly for Main Street America," Dirk Kempthorne, president and chief executive of the American Council of Life Insurers, wrote to the Washington *Post*. The Department of Labor found that insufficient or nonexistent investment advice led owners of IRAs and other retirement accounts to lose out on $114 billion in 2010.

The split over the rule has fallen along party lines. Perhaps not surprisingly, harsh rhetoric on both sides has followed. The Republican-led Congress has drafted a bill that would block the Department of Labor from implementing the new rule. Obama has issued a veto threat. Either way, a great deal is at stake. Says Garrett: "When people have more faith and trust in our industry, they'll start investing more." ◻

STATE OF RETIREMENT

10,000
Number of Americans who will turn 65 every day from now until 2030

10 to 12
Times your annual income: what investors say you should have saved for retirement

52%
Percentage of Americans at risk of having insufficient retirement funds to maintain their current lifestyle

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The climate contest

Inside the confusing alliances and battle lines at the major U.N. climate summit in Paris **By Justin Worland**

MAJOR NEGOTIATING GROUPS:

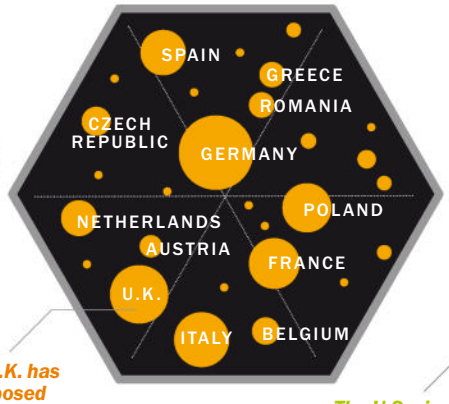
OPEC Nations

Oil exporters that have a history of ***blocking meaningful climate action***

Saudi Arabia has asked for compensation for any lost oil revenue due to a climate deal

European Union

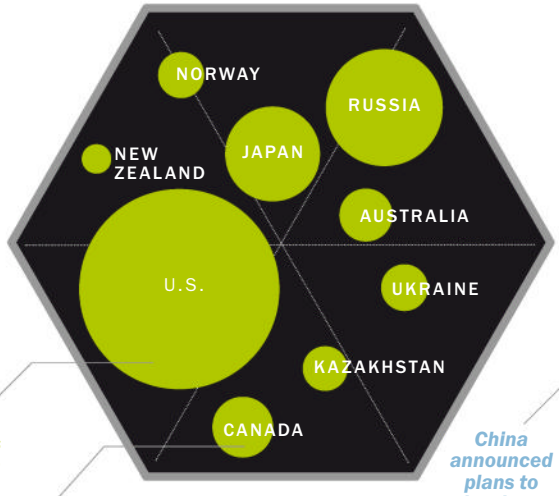
The E.U.'s 28 nations negotiate in a bloc and push for ***tougher climate action***



The U.K. has proposed eliminating all of its remaining coal power plants by 2025

Umbrella Group

A coalition of non-E.U. developed countries that have been ***foot draggers on climate change*** *in past summits*



The U.S. aims to cut carbon emissions by 32% from 2005 levels by 2030

New Canadian PM Justin Trudeau has promised a greener government

China announced plans to develop a national carbon cap-and-trade program

COMMON PRIORITIES OF THE ABOVE GROUPS:

Transparency

Developed countries want strong measures to ensure that developing countries follow through with their commitments

Ambition

These nations are pushing for a more aggressive carbon-cut target ...

Differentiation

... as well as an agreement that differentiates between the responsibilities of developed and developing countries

OTHER GROUPS IN THE CLIMATE NEGOTIATION PROCESS:

Number of countries in each group

54

African Nations

The group aims to raise the influence of Africa, which is very vulnerable to climate change

22

League of Arab States

These nations could face terrible heat—but depend on oil revenue

16

Coalition for Rainforest Nations

This group advocates reforestation to mitigate climate change

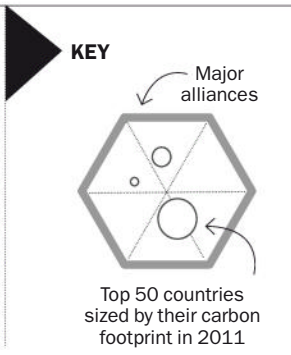
48

Least-Developed Countries

All are very poor and need help adapting to climate change

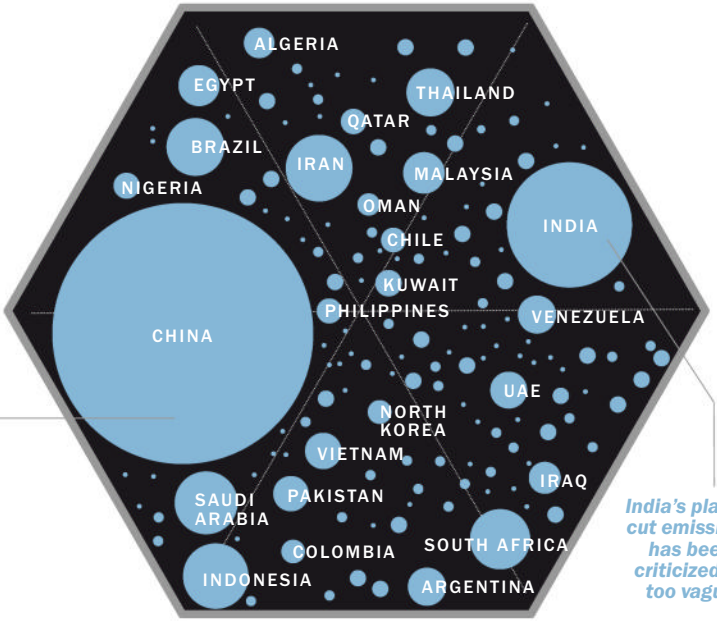
ADDITIONAL REPORTING BY MERRILL FABRY NOTE: NOT ALL COUNTRIES

MORE THAN 100 HEADS OF GOVERNMENT AND 40,000 OTHER ATTENDEES ARE GATHERED IN Paris to craft a global climate deal. It's challenging work, made more complicated by the slew of alliances among countries—especially since nations can belong to multiple groups. The likely outcome is a pact that will formalize the carbon cuts that countries have promised to make, with room for debate. But as President Obama said at the summit's start, "no nation—large or small, wealthy or poor—is immune" to the effects of climate change. Here's a breakdown of the players at Paris:



Group of 77 and China

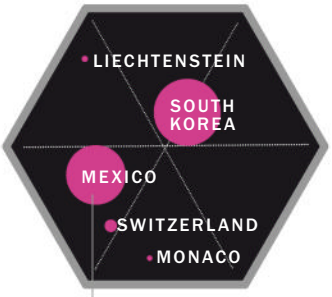
*This influential **group of developing nations** now includes 134 countries*



India's plan to cut emissions has been criticized as too vague

Environmental Integrity Group

*This mix of developed and developing countries tries to **find common ground** on climate change*



Mexico's stock exchange launched a program to allow polluters to trade carbon credits

Alliance of Small Island States

*A coalition of 44 low-lying and small island countries that pushes for **ambitious carbon cuts***

Small island nations emit a relatively small amount of carbon, but they have a lot to lose from rising sea levels

Adaptation

Many of the most vulnerable want the agreement to focus on methods to adapt to warming, not just slow it down

Loss and damage

These groups want clear terms outlining how to handle loss and damage related to climate events in the most vulnerable places

Finance

These groups say that adequately addressing climate change in the developing world will hinge on financial commitments to the tune of $100 billion a year flowing from rich nations to poor ones

18

Like-Minded Group of Developing Countries

They represent more than 50% of the world's population

7

Independent Association of Latin America and the Caribbean

This group pushes for adaptation funding

54

Agence intergouvernementale de la Francophonie

This alliance is composed of French-speaking nations

4

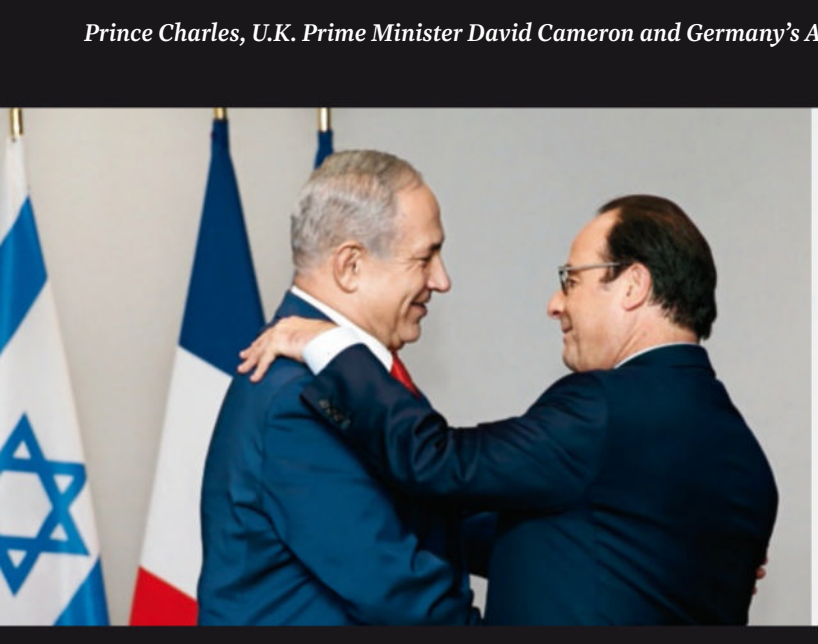
BASIC Countries

The major developing nations: Brazil, South Africa, India and China

UNDER TOP 50 CARBON PRODUCERS ARE LISTED FOR SPACE. SOURCES: JENNIFER MORGAN, WRI; CDIAC; U.N.; THEROADTHROUGHPARIS.ORG; U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE; U.N. STATISTICS DIVISION; WORLD BANK; NPR

French President François Hollande—who is hosting the Paris summit—also hosted Xi and Obama; on the sidelines, Netanyahu and Abl

Prince Charles, U.K. Prime Minister David Cameron and Germany's Angela Merkel had a jovial meeting—while Netanyahu and Putin d



Hollande, the man of the hour, was everywhere, greeting Netanyahu and Japanese Prime Minister Shinzo Abe. Xi and Brazilian Presider

bas shook hands for the first time in years, though it wasn't clear if they spoke

id not. Obama, Hollande and India's Narendra Modi found time on the sidelines

nt Dilma Rousseff shook hands in a meeting of developing-world powerhouses

PARIS

World leaders get some face-to-face time at the U.N. climate summit

SOMETIMES IN DIPLOMACY, THE sideline is where all the action is. That was the case at the launch of the Paris climate summit on Nov. 30, where nearly 150 world leaders met in one of the largest such gatherings in history. They were ostensibly there to talk about global warming, but with Paris less than three weeks removed from a horrific terrorist attack and the Middle East in chaos, presidents and prime ministers took the opportunity to discuss global security issues just offstage of the summit. So President Obama sat down with Russian President Vladimir Putin to talk about the conflicts in Syria and Ukraine, and with Chinese President Xi Jinping to discuss the possibility of broader anti-terrorism initiatives. Israeli Prime Minister Benjamin Netanyahu and Palestinian Authority President Mahmoud Abbas—sharply at odds this year—even found time to exchange a rare handshake at the summit.

The threat of terrorism dominated the sideline discussions—so much so that some critics asked why it wasn't the main event. But climate change and terrorism are part of the same threat. National security experts have warned for years that climate change contributes to the social instability that in turn feeds extremist groups like ISIS. Before leaving Paris, Obama made the same point: "This one trend, climate change, affects all trends." And it will only be stopped by global action.

—JUSTIN WORLAND

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WILL BE NAMED THE

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PERSON OF THE YEAR

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The View

'THERE IS NO QUESTION THAT SOME OF THESE CHANGED DECISIONS WOULD IMPROVE OUR QUALITY OF LIFE.' —PAGE 34

A new wave of campus revolts and campaign speeches is fueling a dangerous war on words

NATION

The fallacy of 'free speech'

By Haley Sweetland Edwards

NEWTON'S THIRD LAW HOLDS THAT for every action, there is an equal and opposite reaction, which may provide the best explanation for what is occurring simultaneously on the left and on the right, on America's campuses and the campaign trail. In both cases it's enough to make defenders of the First Amendment curl up in despair.

The campus revolts just keep coming, as students go to ever greater lengths to defend their right not to be upset. This has now gone well past administrators' labeling texts with "trigger warnings" to help students avoid having to read about difficult topics like racism or rape, or Mount Holyoke's canceling a performance of *The Vagina Monologues* for fear of excluding women who don't have vaginas.

Students at the University of Ottawa protested a campus yoga class, charging that yoga was a form of "cultural appropriation." At Smith College in November, students associated with the Black Lives Matter movement asked visiting media to declare their support for their cause before they were admitted to cover a sit-in.

This wave of political correctness is born, essentially, of a noble idea. Minority students, facing bullying or belittlement, argue for the need to protect themselves, to create a safe space. As one Yale undergraduate put it, "It's about creating a home here." But in creating that space, these advocates risk walling themselves off from the unexpected, albeit sometimes ugly, reality of engaging in pitched debate with people with whom they do not see eye to eye. They are rejecting the

PHOTO-ILLUSTRATIONS BY AZIZ + CUCHER © 1994

sometimes crushing but always formative experience of discovering that you disagree, deeply and fundamentally, with a friend, and then deciding to stay friends anyway. It is a crucial lesson for anyone living in a pluralistic democracy, especially one in which Donald Trump, the human equivalent of a trigger warning, dominates the Republican field.

Which brings us to the equal and opposite reaction. It is tempting to see the popularity of Trump, who has managed in the past four months to insult not only women, immigrants and Muslims but also the entire nation of China and anyone with a disability, as a direct response to the rise of political correctness. Trump supporters argue that, having had to watch carefully what they say and how they say it for years, there is something liberating about a candidate who seems not only to say whatever pops into his head but to delight in the possibility that he's not supposed to say it. On the campaign trail, Trump often prefaces his most shocking lines with a confrontational preamble: "Are you ready for this?"

But the idea that Trump's front-runner status is a reaction to the renewed burst of political correctness is also a little too clean. After all, his rhetoric is born of the same impulse: to jettison intellectual engagement in favor of an emotional response, to prize feelings over reason, to intimidate, rather than engage with, those who would disagree.

Conservatives blame what they see as a liberal "culture of victimhood" for the rise of political correctness. If everyone is a victim, they argue, everyone must be coddled and no one can say anything that might offend anybody. But conservatives' anger at political correctness often stems from their belief that they too are victimized—by the liberal thought police, by mainstream media, by lefties on Twitter all too willing to smear the next luckless pol as racist or sexist or just plain wrong.

Both defenders of PC culture and its critics argue that in order for democracy to work, everyone must feel welcome to say what they think, to engage with the issues that bedevil us as a society. But it's not enough to restrict speech in order to make people feel safe, and it's not enough to be deliberately offensive so that people feel welcome to say what they want. Our politicians must actually grapple with solutions. Trump recently lambasted President Obama and Hillary Clinton for refusing to use the term *radical Islamic terrorism:* "you can't solve a problem if you refuse to talk about what the problem is," he said, and went on to use the phrase gleefully, to the delight of the crowd. But when pressed on what he would actually do about terrorism—radical, Islamic or otherwise—he didn't need to give that infinitely complex challenge a second thought. "I'm going to bomb the sh-t out of them," he said. The crowd roared. □

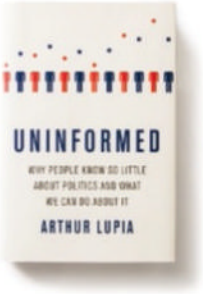
VERBATIM

'In this instance we failed to live up to our own standards of sensitivity and diversity ... We have, can and will continue to do better.'

LIONSGATE STUDIOS, in a statement apologizing for casting white actors—including Gerard Butler *(below)* and *Game of Thrones'* Nikolaj Coster-Waldau—to play the titular gods in *Gods of Egypt,* a forthcoming fantasy epic set in North Africa

THE NUTSHELL

Uninformed

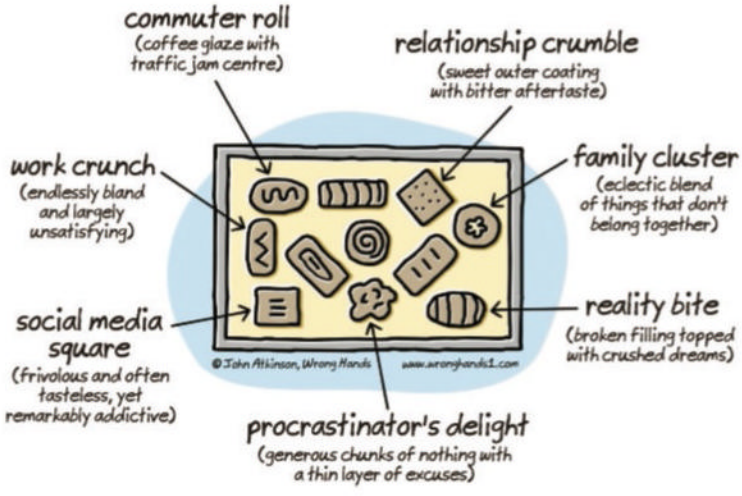


WHY DON'T MORE voters come forward to support—or reject—new laws and regulations that would directly affect them? In his new book, *Uninformed: Why People Seem to Know So Little About Politics and What We Can Do About It,* political scientist Arthur Lupia argues that it's a matter of education. And America's key influencers, he writes, should address this—by making things personal. Rather than focusing on how an environmental regulation might slightly change the temperature on a polar ice cap, for example, Lupia contends that journalists, teachers and advocates should explain how it will save a local elementary school from ending up underwater. Once voters are hooked on a big-picture concept, it's easier to get them engaged with the details of a law, rule or regulation—and take informed action to help it pass, fail or evolve. "There is no question," Lupia writes, that knowing more "can change our decisions. There is no question that some of these changed decisions would improve our quality of life."

—SARAH BEGLEY

CHARTOON

Life's box of chocolates



JOHN ATKINSON, WRONG HANDS

BUTLER: TAYLOR HILL—GETTY IMAGES

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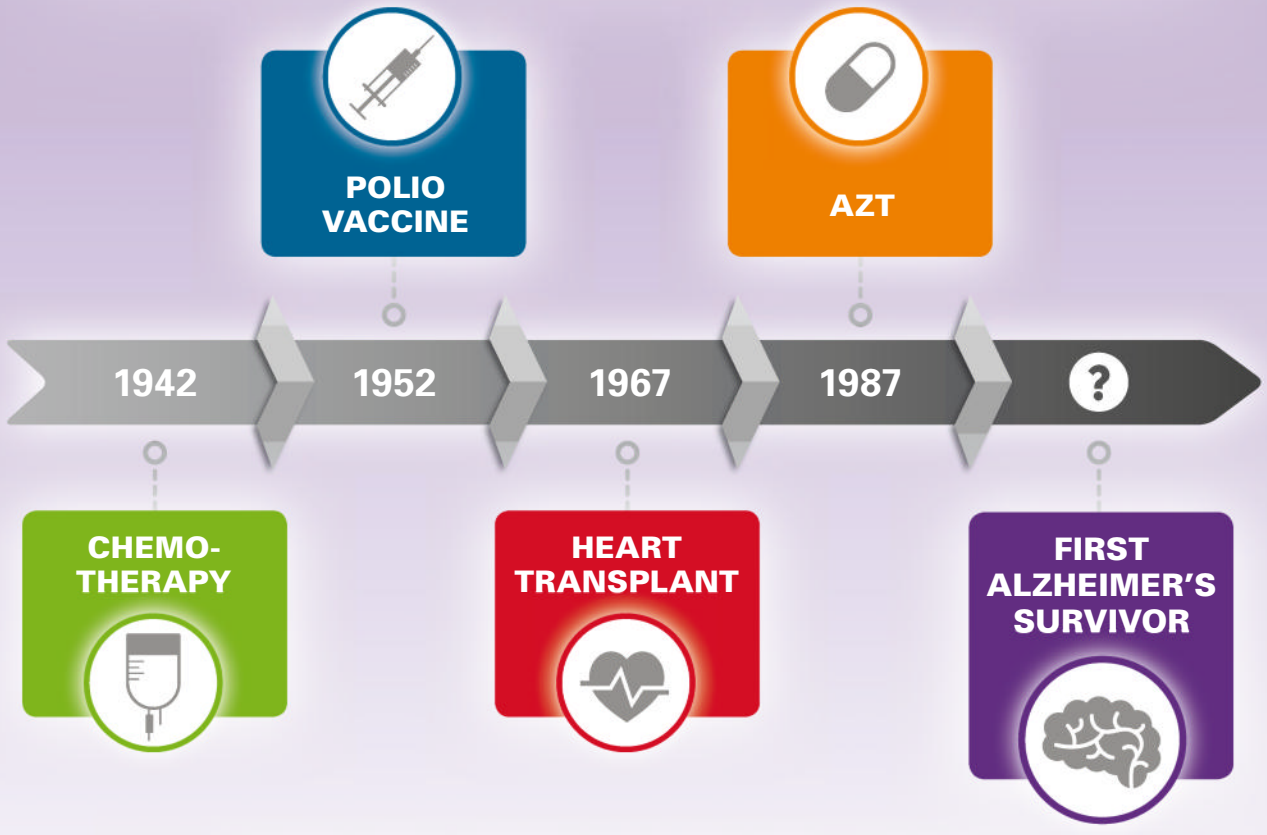

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THE BRAINS BEHIND SAVING YOURS.

The best gift this year? Giving—and here's how to make it count

By William MacAskill

MacAskill is a philosopher at Oxford and a co-founder of the effective-altruism movement

WHAT WAS THE BEST GIFT I EVER received? Well, I'm a music lover, so I'd have to say it was either a Spotify subscription or my top-of-the-range Sony MDR-7506 headphones. Together they've provided me with countless hours of high-quality audio accompaniment. Growing up in a loving, well-off family in one of the richest countries in the world, what more could I want?

Giving gifts to loved ones is great: it's a rewarding way to spread joy and strengthen friendships and family ties. But (at the risk of sounding like Bob Geldof) at this time of year I'm always reminded of how many people not only get no presents but also lack the basics to allow them to live healthy lives. For me, luxury headphones were the perfect gift; for the world's poorest, it would be nutritious food, clean water and health care.

The poorest 10% of the world's population, some 700 million people, live on less than $1.90 per day. And that's adjusting for local purchasing power: they live on what $1.90 would buy in the U.S. Faced with this kind of budget, and often geographically isolated, they are forced to eat whatever they can find and drink and wash in unsafe water. They can only pray that they don't succumb to malnutrition, malaria or any number of other diseases that, while perfectly curable in rich countries, frequently ruin or end lives in the developing world.

I don't seek to make anyone feel guilty for exchanging luxury goods with the people they love. But it seems to me that there's another type of giving that is, if anything, even more profound: giving the basics of life to those most in need. Sure, you might not get a thank-you letter (who does these days?), but you'll have done something extraordinary.

From the heart

Actors, comedians and other influencers share the gifts that have meant the most, from thoughtful meals cooked by their kids to an annual closet cleanout turned clothing giveaway

KARL ROVE

'When I was 5 or 6, my father was a hard-rock geologist, and he didn't get a Christmas bonus that year. So he convinced a friend of his, who flew a helicopter, to put on a Santa suit and land in our backyard outside of Arvada, Colo., which was just a field, and he got out of the helicopter and gave us little 25¢ toys, and it was the greatest Christmas of my life: the year Santa came to our house in a helicopter.'

Rove is the author of *The Triumph of William McKinley*

CATE BLANCHETT

'I gave my husband a voucher three Christmases ago which said, "You can redeem anytime, anywhere, for a two-hour deep-tissue massage which I will give you." For three years he has said, "Tonight?"'

Blanchett stars in Carol

MARGARET CHO

'One thousand rolls of toilet paper from Charmin to help my homeless outreach #BeRobin, a charity founded to celebrate the philanthropic life of Robin Williams. They brought it in a truck. I wept. It was truly beautiful.'

Cho's stand-up special PsyCHO *airs on Showtime this month*

MACASKILL: ANDRE CAMARA; BLANCHETT: NOAM GALA—GETTY IMAGES; CHO: ADAM TAYLOR—GETTY IMAGES

However, I'm not just interested in people giving more to charity (although that is important). I'm also passionate about people giving smarter, because where you give can make a huge difference on the impact you'll have.

What do I mean by that? Well, to start with, there's a reason I've been talking about the developing world. Even average earners in the West are incredibly rich compared with the global poor, so a sum of money considered moderate for some could make a huge difference in the poorest countries.

That's not to say that all developing-world poverty-relief charities are good at making a difference—that's certainly not the case. Plenty of money donated in good faith is lost to local corruption, poor administration or programs of intervention that sound great in theory but don't achieve much in practice. As a result, it's crucial to look at the effectiveness of the work a charity does before committing your money. How much good does it achieve for each dollar donated? Is there robust evidence for the impact of its programs?

It's not always easy for people to find the answers, but they are vital questions to ask. That's why there are now organizations devoted to finding and promoting the best charities. As part of the effective-altruism movement, they are dedicated to helping people make the biggest possible difference with their donations.

I love my music, and I love my headphones. But this year, the best gift I could get is to see as many people as possible giving generously to the most effective charities in the world.

MacAskill is the author of Doing Good Better *and a co-founder of the charity Giving What We Can*

KRYSTEN RITTER

'I always appreciate practical gifts. I'm a minimalist—I'm not into tchotchkes. I'm always trying to get rid of stuff. Every so often I'll invite my friends over to go through my closet and take my clothes. So I guess my favorite gifts are basic things like a wallet I'll use forever or a great pair of jeans.'

Ritter is the star of Jessica Jones, *on Netflix*

RICK ROSS

'I'm pretty sure it'd be the Christmas dinner my son and daughter threw me two years ago. They just made all kinds of food. I went over there and they sprayed [Silly String] in my face. They recorded it and put it online.'

Ross releases a new album, Black Market, *this month*

ROONEY MARA

'I have such a huge family that the holidays give me a lot of stress and anxiety, because I just feel that it's so wasteful and we don't need anything—it's just like you're trying to find a present for someone. Last year, me and my siblings and even my parents were like, "No, I do not want a gift. I'm not getting you a gift. We're going to donate." Now I give everyone Oxfam—I get everyone goats and pigs and cows.'

Mara stars in Carol

NORMAN LEAR

'The best gift I've ever gotten, I've gotten every day of my life, and that's waking up. I love waking up. I'm a morning, afternoon and evening person. There are two small words that are the most important words in the English language: *over* and *next.* If there were a hammock in the middle between *over* and *next,* that would be living in the moment. Waking up in the morning is the next moment. The next moment to me is the taste of coffee.'

Lear is a television producer

RITTER: NICHOLAS HUNT—GETTY IMAGES; ROSS: KEVIN MAZUR—GETTY IMAGES; MARA: EVAN AGOSTINI—AP; LEAR: RICHARD SHOTWELL—AP

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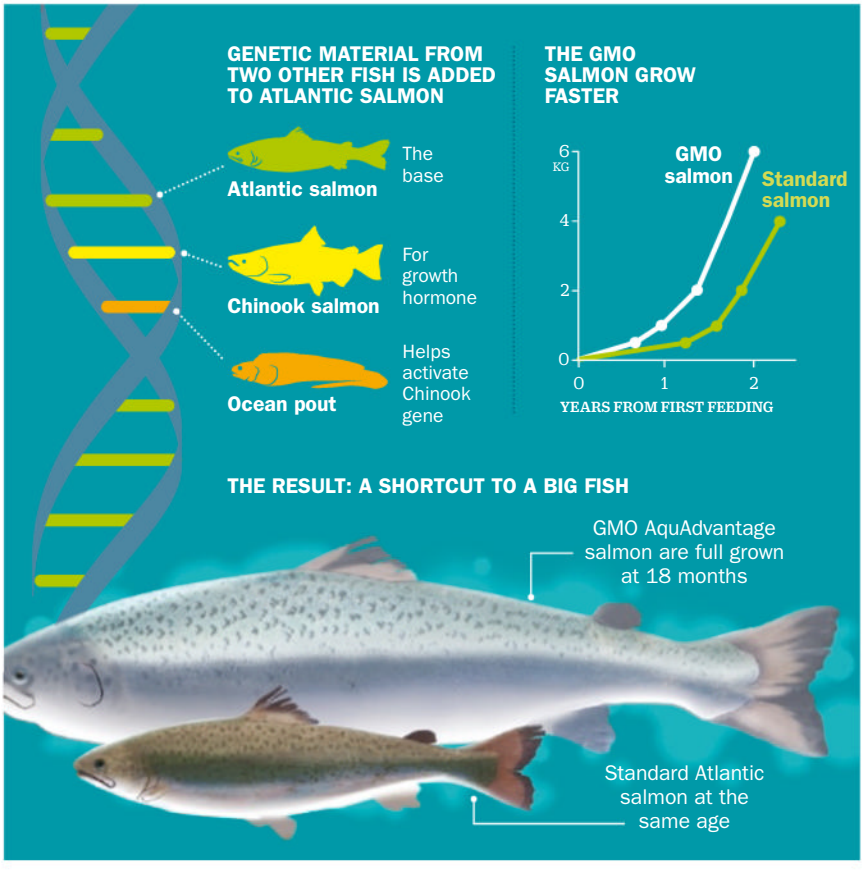
The first genetically altered animal is approved for eating

By Alice Park

A SALMON THAT HAS NEVER BEEN seen in nature but grows twice as fast as regular salmon just got closer to store shelves and restaurant menus. AquAdvantage—a patented Atlantic salmon that includes genetic material from two other fish species—has been the subject of controversy for years, but on Nov. 19, the U.S. Food and Drug Administration said its scientists had deemed it safe for humans to eat. It's the first genetically modified animal the agency has greenlighted for human consumption. The fish will be bred in land-based tanks in Canada and Panama.

Gene-altered salmon may have trouble winning over some consumers and retailers who are wary of the potential environmental and health hazards of eating genetically modified animals. Here's what all the fuss is about.



Is genetically modified salmon safe to eat? The FDA says its scientists "rigorously evaluated extensive data submitted by the manufacturer, AquaBounty Technologies, and other peer-reviewed data" and determined that the salmon is safe to eat for both humans and animals. There was no difference, from a safety perspective, between eating farmed salmon and eating AquAdvantage salmon.

Most of the studies in which animals ate genetically modified foods do not show any serious health effects. A small number of studies do hint at possible problems—but research on the long-term safety for humans is scant.

Will I know which salmon are genetically modified and which are not? Not necessarily. There is no regulation in the U.S. requiring companies to label genetically modified organisms (GMOs) as such. That means any indication to consumers that a food is genetically altered would be voluntary. But the FDA did issue recommendations for how companies should note genetic changes should they choose to do so.

What other GMO foods are approved? Most corn, soy, cotton and sugar beets—as well as some alfalfa, potatoes, papaya and other crops—that are grown in the U.S. are genetically engineered to either produce higher yields or resist pests and drought. Up to 80% of the processed foods sold in the U.S. contain GMOs.

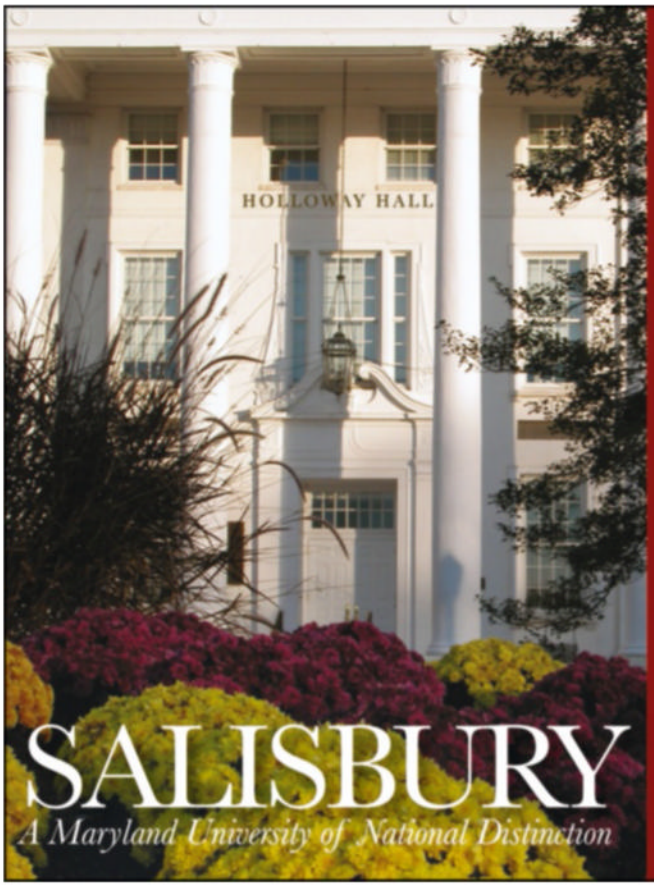
What does gene-altered salmon taste like? AquaBounty says it is indistinguishable from farm-raised salmon.

Why do some people oppose GMOs? Opponents have several concerns. First, the genetic alterations could change the plant or animal in ways that could be harmful for the people who eat it. Some worry that tinkering with genes may cause changes that could damage the plant or animal by making it less fit for survival. Finally, AquAdvantage salmon are raised in containers, not in the wild, but if the new species were to make its way into rivers and oceans, for instance, some worry that it could alter the existing environment.

Will changing the genes harm the fish? The data isn't clear on this yet. Studies have shown that genetically altered fish tend to eat more to support their growth-promoting genes, but AquaBounty says its salmon consume 25% less feed than Atlantic salmon.

Where will the genetically modified salmon be sold? AquaBounty says it may take a year to raise enough fish to supply supermarkets. But certain retailers, including Costco, Whole Foods, Trader Joe's, Safeway, Kroger and Aldi, said that as of now they do not intend to sell the fish. Still, with $85 million invested so far in the development of this unprecedented species, the company will likely be working hard in coming months to find viable retail channels for its fish. ◻

SOURCE: AQUABOUNTY TECHNOLOGIES



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A TIME INVESTIGATION

THE PRICE O

Clockwise from top left, at Chicago airports: a passenger checkpoint, a full-body scanner, searching a carry-on, checked-baggage scans

PHOTOGRAPHS BY RYAN LOWRY FOR TIME

F SECURITY

TSA'S EMERGENCY POWERS ARE DOING MORE HARM THAN GOOD

By Massimo Calabresi

THEY POSED AS TRAVELERS, PACKING FAKE BOMBS into suitcases and checking them at ticket counters in airports around the U.S. Then the team of covert inspectors from the Department of Homeland Security tracked the response of the Transportation Security Administration (TSA). In a few cases last year, the fake bombs slipped through TSA's $1.38 million bag-scanning machines undetected. Worse, when the dummy explosives set off an alarm, the suitcases still made it past TSA screeners more than half the time, several people who have read the inspectors' classified report tell TIME. Says one source familiar with the findings: "The performance is eye-opening and really, really poor."

What makes these failures particularly troubling is that since 2008, TSA has spent more than $2 billion to improve the screening of checked baggage. How can a federal agency spend that much on such a critical component of aviation security and have so little to show for it? For starters, it helps to have no oversight and no accountability.

TSA spent all of that $2 billion through a little-known power that lets the agency ignore every rule and law controlling government spending, a TIME review of the agency's records shows. The loophole, known as "other transaction" authority, can be used by only a handful of agencies. And those who know about it say it's a recipe for disaster. "The mere fact that an agency opts into an other transaction agreement is almost a guarantee that it's going to go wrong later," says Steven Schooner, a George Washington University Law School professor who trains federal procurement officers.

This is a particularly dangerous moment for air security to work better in theory than in practice. U.S. intelligence has concluded that ISIS likely planted the bomb that brought down a Russian jet over the Sinai Peninsula on Oct. 31, killing all 224 people on board. Among the methods ISIS may have used to get the device on board, intelligence officials say: a suicide bomber carrying it onto the plane, an airport worker planting it there or someone hiding it in checked baggage. U.S. officials suspect the group may have recruited or converted followers with bomb-making skills from military forces or other extremist groups, like al-Qaeda, that have targeted Western airliners in the past.

If ISIS is expanding its threat to American travelers, TSA is still struggling to overcome 14 years of failures. Among the litany of errors in the year since the checked-baggage fiasco: TSA officials cleared 73 airport workers for access to restricted areas even though their names appear in the government's database of those with suspected terrorist connections, and TSA officers helped smuggle drugs past security at airports in Los Angeles and San Francisco. In June, Homeland Security Inspector General John Roth found that TSA failed to catch threats at passenger checkpoints a staggering 96% of the time.

96%
TSA's failure rate when Homeland Security inspectors attempted to sneak fake bombs and weapons through passenger checkpoints this year

TSA's leaders have accepted Roth's findings and say they are working to improve performance. But a close look at TSA's history shows the agency's special powers are an underlying and intractable source of its problems. Created in the panicked days after 9/11, TSA won from Congress a blanket pass on many of the federal oversight and accountability rules that govern other agencies. The result, say longtime TSA watchers, is an agency with a disgruntled workforce, ineffective equipment and procedures that don't provide safety. But Congress has its own reasons for leaving those powers in place.

EVEN THE PHRASE *other transaction authority* is one of those Washington confections designed to make the curious look elsewhere. The loophole traces its roots to the Cold War, when the U.S. was racing to catch up with the Soviet Union after the launch of the world's first satellite, Sputnik. In the Space Act of 1958, Congress gave NASA the power to "enter into and perform such contracts, leases, cooperative agreements, or other transactions as may be necessary in the conduct of its work." Frustrated by government contract regulations that required everything from competitive sourcing to auditing, NASA's top lawyer, Paul Dembling, noticed the rules never mentioned "other transactions." So he turned Congress's afterthought into a way to skirt oversight. NASA could simply cite the "other transaction," and the federal government's rule-free spending system was born.

For decades, only NASA got away with this ploy. Then in 1989, DARPA, the Pentagon lab that developed the Internet and GPS, convinced Congress it should have the same power. Soon enough, other agencies wanted the authority to skip every rule in the 2,000-page book of Federal Acquisition Regulation. By 2001, the rest of the Pentagon, as well as the FAA and the Department of Transportation, had it.

The terrorist attacks of 9/11 presented an urgent challenge to the government's spending system. No one had built an agency from scratch during a national emergency since World War II. In creating the TSA, Congress gave it just one year to have a system in place for screening all passengers and bags at every U.S. airport. "It was an impossible task," says Sam Whitehorn, one of the Senate staffers who wrote the bipartisan act that created TSA on Nov. 19, 2001. "So we made sure they had all the authority that they needed to act quickly."

Other transaction authority was just one of the powers given to TSA at its inception. To get screeners into airports quickly, TSA also got a pass on federal hiring rules. By November 2002, nearly 60,000 federal workers were screening every passenger at every commercial airport in the country. And by the end of

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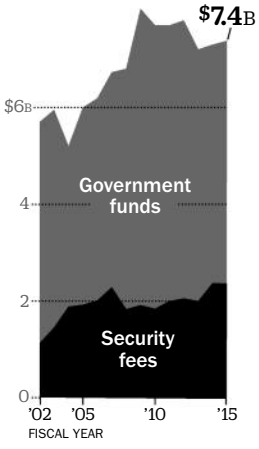
THE TROUBLED TSA

Charged with ensuring the safety of 660 million passengers and nearly 2 billion bags a year, TSA has spent heavily but often not effectively in an attempt to fulfill its mission. Nearly a third of the agency's funds come from passenger and airline security fees.

SOURCES: OMB; DHS; GAO; NEWS REPORTS

ANNUAL SPENDING



COSTLY AND CONTROVERSIAL PROGRAMS

$1 billion+

OBSERVATION SCREENING

2007–present

The SPOT program aimed to catch terrorists via behavioral clues. In 2010, GAO found the program had missed known terrorists 23 times and recommended defunding it.

$42 million

NAKED SCANNERS

2007–13

TSA deployed, then withdrew, hundreds of machines that showed passengers' bodies on officers' screens. More recently, inspectors found that checkpoints miss threats 96% of the time.

$30 million

PUFFER MACHINES

2004–09

TSA put explosive-material sniffers in 37 airports, but dust and humidity prevented them from working properly. GAO found that field tests would have spotted the problem.

that year, TSA was running every suitcase through electronic screening machines. Even agency critics say the turnaround was impressive. Without such flexibility, says Michael Jackson, then deputy head of the Department of Transportation, "we would not have been able to accomplish what we did."

But the speed came at a cost. A federal audit found TSA used its hiring-rules exemption to hold recruitment sessions for would-be screeners in places like Telluride and resorts in the Florida Keys and the U.S. Virgin Islands, adding more than $300 million to its startup costs. In 2004, TSA used its superpowers to spend $30 million on 207 passenger scanners known as "puffer" machines because they blew jets of air over travelers and sniffed the eddies for traces of explosive materials. The machines didn't work in the field, and the Government Accountability Office found TSA failed to do testing that would have been required under normal federal rules.

TSA's special powers may have been critical for the agency's launch, but they soon became hard to justify. In 2006, the Senate unanimously voted to strip TSA's use of another power, the Acquisition Management System, but the provision disappeared before President George W. Bush signed the bill. It was finally axed the next year, but amid the claims of reform, few noticed the lawmakers had left TSA's more powerful procurement exemption, other transaction authority, in place. A staffer involved in the law's passage says doing so wasn't an oversight but rather a "half-step" result of negotiation.

In 2008, TSA's superpowers briefly became a presidential campaign issue. Wooing unions that opposed TSA's hiring exemptions, then candidate Barack Obama promised, "As President, I will make sure that the documented waste and mismanagement at TSA is subject to the same rules regarding contracting as other federal agencies." But when Obama did become President, he set in motion TSA's most aggressive use of superpowers yet.

IN 2009, with the Great Recession looming and lawmakers in a hurry to spend, Congress gave TSA $1 billion to optimize checked-baggage inspection. Over the next three years, TSA used its special spending power to pay 29 airports more than $700 million to streamline clunky screening processes in departure terminals. That often meant creating elaborate conveyor systems in the bowels of airports where checked bags would be scanned and suspect ones diverted for inspection in specially equipped rooms. TSA told the airports it would pay for 90% of all renovations to accommodate the changes; the result was glittering new terminals from Baltimore to Honolulu.

When the stimulus funds ran out, TSA stayed in the business of subsidizing airports. The agency collects $5.60 from travelers for every U.S.-based trip. In fiscal year 2013, TSA used those fees to underwrite $800 million worth of other transaction agreements to speed checked-baggage inspection, including $24 million for Chicago's O'Hare and $25 million for A.B. Won Pat airport in Guam. In a 2012 review of the program, the Government Accountability Office found it was boosting airports' bottom lines and that TSA could save $300 million if it cut its contribution from 90% to 75%.

Big-ticket items aren't the only expenses TSA is paying for outside the government's system for oversight and accountability. The agency funds canine teams, armed guards, janitors and electricity at airports using its rule-free powers. In 2011, New Yorkers who lived near shuttle stops to Kennedy airport complained to Senator Chuck Schumer that TSA agents were taking up parking spots. In January 2014, TSA signed an other transaction agreement to pay JFK $1.5 million a year for parking.

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THE CAMPAIGN FOR OHSU

Some particularly unusual TSA practices are now under scrutiny. In January 2014, TSA began paying the American Public Transportation Association (APTA) $1.5 million a year via other transaction authority for a series of publications on terrorist threats to surface transportation that it circulates to lawmakers and government officials. The lobbyists in turn have spent $3 million since then influencing the bill that funds TSA, a review of lobbying disclosure forms shows. TSA's payments to APTA don't violate the federal Anti-Lobbying Act, which criminalizes the use of federal funds to lobby members of government, because the Justice Department has interpreted the law to apply only to grassroots campaigns. But the newsletter "is obviously lobbying," says Craig Holman of the watchdog group Public Citizen, and "is a violation of the spirit of the act."

Finding waste, fraud and abuse in TSA's off-the-books spending is difficult because "the methods or mechanisms used to track contractor performance and results also do not apply," says the Congressional Research Service. And TSA makes public scrutiny even harder by labeling much of its work secret or sensitive: last January, DHS Inspector General Roth publicly accused TSA of using its authority to classify spending audits to prevent their release to the public. In the unclassified summary of his checked-baggage report, Roth said there had been no improvement in TSA's ability to find bombs in bags since 2009.

35%
The percentage of TSA's annual procurement budget that was underwritten during fiscal year 2013 using "other transaction" authority

A BROADER LOOK at TSA's missteps reveals a pattern: expansive use of special powers in the years since 9/11, followed by failure to deliver on its core mission. Take the TSA's exemption from federal hiring rules for transportation security officers (TSOs), the people in blue shirts and black pants who staff the screening stations. Thanks to that exemption, the agency can advertise entry-level TSO jobs for as little as $28,000 a year, which is below the federal poverty level for a family of five. And that pay doesn't grant the job security of many other government employees. In 2014, 165 TSOs were terminated for medical conditions including arthritis, asthma, cancer, depression and posttraumatic stress disorder, according to TSA records obtained by TIME. While headquarters officials might be reassigned for those medical conditions, the TSOs are fired outright.

It will surprise few then that TSA agents have among the worst morale and highest turnover of government employees. That contributes to poor performance by screeners who spend hours staring at monitors to spot bombs and weapons that rarely come. Over the past year, Roth ran covert tests at passenger checkpoints and found TSA was missing 96% of threats there. Sometimes the agency's full-body scanners missed the threats, several sources familiar with the classified report tell TIME. But often it was the screeners themselves making a mistake or using faulty procedures.

TSA's new leader, Peter Neffenger, defends the screeners, saying most are dedicated and "have said yes to a very challenging, critically important job." Confirmed in June, he is requiring all officers to receive basic training at the agency's boot camp in Georgia in an effort to improve TSO performance and boost focus and morale. He says he is reviewing the agency's use of superpowers but seems more interested in refining them than giving them up. The issue, he says, is "How do I train people and make them feel connected to the national mission?"

Even if Neffenger finds the agency's special powers are doing more harm than good, though, Congress has its own reasons to keep them in place: they help keep the money flowing from taxpayers and campaign contributors. Republicans argue that screener woes show that the TSA workforce should be privatized and have created a limited option for airports to do so. Democrats say the answer is unionization, and TSA has allowed limited steps in that direction. Neither position will win outright, but the ongoing battle has benefits. For the 2014 election cycle, campaign donations from the transportation industry and labor groups to members of the House committees with oversight of the TSA totaled over $10 million. In the Senate, the donations neared $16 million.

Congress is nonetheless eager to give the impression it wants reform. Last year both chambers unanimously passed the Transportation Security Acquisition Reform Act. Its author, Republican Richard Hudson of North Carolina, said it would "root out the waste … and increase safety by ensuring that the most effective, cost-efficient security tools are implemented." It was quickly signed into law by Obama. But the measure pushes TSA to spend more, not less, in coming years.

After the Russian jet bombing, Neffenger and DHS Secretary Jeh Johnson ordered "a series of interim, precautionary enhancements to aviation security" at some Middle Eastern airports. After Roth's report on passenger checkpoints in June, they announced similarly unspecified security enhancements at domestic airports. A close look at what TSA is doing, rather than what it is saying, is not reassuring. Documents obtained by TIME show TSA intends to spend $51 million on new full-body scanners even though it has failed to show the machines will catch threats better than the old ones. And the Acquisition Reform Act of 2014 left TSA's other transaction authority in place. So far in 2015, the agency has used that power to sign agreements worth $85 million. By 2020, the agency plans to spend $330 million on new checked-bag scanning systems for airports across the country. —WITH REPORTING BY TESSA BERENSON AND PRATHEEK REBALA/WASHINGTON ◻

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U.S. Marine Captain Emily Naslund on the front line of the Afghanistan war in 2010, patrolling a village in Helmand province

SENDING WOME

THE PENTAGON NEARS A HISTORIC DECISION ON

PHOTOGRAPH BY LYNSEY ADDARIO

N TO WAR

EQUALITY AT THE FRONT LINES

BY MARK THOMPSON

A BOMB RIPPED THROUGH A U.S. ARmored vehicle patrolling a Baghdad street in the darkest days of the Iraq War, setting it ablaze and filling the crew compartment with smoke. As flames licked the fuel tanks, busted hydraulics kept the hatch locked. Amid the carnage and choking, the four soldiers trapped inside heard enemy small-arms fire hitting their 18-ton Stryker. After finally getting the hatch open, a lieutenant pulled out a staff sergeant who had lost his leg below the knee. That left two people inside: a grievously wounded 6-ft. 1-in. sergeant, 250 lb. in his gear, and a 5-ft. 2-in. soldier weighing half as much.

"She pulls him out of this burning vehicle, which is amazing in itself," her commander recalled. "Getting in and out of the vehicle with all of your kit on is difficult enough on its own, especially if you add smoke, fire and the chaos of getting shot at, and bullets pinging off the outside of the armor, but she does it anyway," he continued in an interview for an Army history project. "As she's dragging him back, she's shooting one-handed with her M-16 toward the bad guys. Completely phenomenal! She's just f-cking awesome!"

The woman wasn't an infantryman but an Army lab technician who spent most of her time spinning vials of blood back at the unit's base, not trying to kill rooftop attackers 100 yards away. But on that grim day in 2006, her commander didn't care. While she had come along on the mission in case female Iraqis needed to be searched, she proved capable of far more than that. "It changed my opinion about

where women ought to be in the fight," he said. "When the chips are down, a good soldier is a good soldier."

Good enough to be assigned to the toughest combat jobs in the U.S. military? That's the historic question now pending inside the Pentagon. A generation ago, the possibility of women serving on the front lines seemed as unlikely as, well, a female President. Now both could happen in 2016.

Women have been advancing toward the front lines for more than a generation. They climbed into Air Force fighter-jet cockpits in 1993 and aboard Navy submarines in 2011. But when it comes to combat on the ground—generally the dirtiest and bloodiest jobs in any military, and a required ticket-punch for ground-force promotions—progress has been slow. Women have been edging closer by serving in intelligence, logistics and other support roles. But in 2013 then Defense Secretary Leon Panetta ordered a review of the physical demands of combat slots and any justification for the Pentagon's policy that keeps women out of front-line combat billets. Defense Secretary Ashton Carter is expected to decide in January if women should be permitted in all military roles, including the ones reserved until now for brothers—not sisters—in arms: the infantry grunts, those riding tanks and artillery into battle, and special operators.

The Air Force and Navy, which do little fighting on the ground, have already opened up 98% of their slots to women, and their uniformed leaders have approved going all the way. But that has been a relatively easy choice compared with the decision to add women to the ranks of combat infantry in the Army and the Marines. While the Army, which currently allows women in 82% of its jobs, is green-lighting all jobs for women so long as they can meet certain physical standards, the Marines are holding out, Pentagon officials say. Marine ground-combat units, which make up 25% of Marine slots, should remain all-male bastions, according to recommendations from corps officials. "Women don't have the brute strength that's needed in combat," says Jude Eden, a woman who served as a Marine sergeant in Iraq for seven months in 2005 and 2006. A Marine study last summer reported that 13% of female Marines were injured in infantry training, compared with 2% for men. "And women's higher injury rates certainly don't add strength to combat units," she says.

WOMEN IN THE ARMED SERVICES
(as a percentage of total force)

19%
Air Force

18%
Navy

14%
Army

8%
Marine Corps

Advocates of preserving the status quo cite the life-and-death brutality of close-in combat—blood-spitting, skull-splitting fights with knives, rocks and bare hands. A tidy concept like *fitness* doesn't touch the gory reality. "There is a monumental difference between fitness," a Marine major wrote in a 2013 study, "and fighting in a hand-to-hand match to the death." Even advocates of opening combat to women concede that the average male military recruit is stronger and faster than the average female military recruit. (Gender-specific physical standards acknowledge the fact: a 22-year-old male soldier has to run 2 miles in no more than 17 min. 30 sec.; his female comrade gets 20 min. 36 sec.).

But plenty of women are above average, and some are extraordinary. If the military wants the best available troops fighting the nation's wars, argue supporters of opening combat ranks to women, it can't rule out half the population.

THE ARMY'S APPROACH

THREE WOMEN HAVE PASSED THE Army's punishing Ranger School course in recent months, but few assignments require such intense tests. That's about to change. The prospect of women serving on the front lines led Pentagon civilians to order the military to draft physical-fitness standards for each military job. Generally speaking, it will be easier for men to meet such standards: assessments of the Army's storied 101st Airborne Division found that the average female weighed only 80% as much as the average male, with 10% more body fat and 30% less muscle.

But the military is more than muscle, some advocates argue. On average, men are more aggressive, which can be beneficial in combat. But that trait also contributes to more accidents and injuries, as well as suicides. Women are smaller—their stride is shorter, requiring them to march faster to cover the same terrain. And they may be more susceptible to injury: from 2001 to 2012, female troops were medically evacuated from Afghanistan at a rate 22% higher than men, even though they were formally barred from ground combat. In 2014, female troops were hospitalized 40% more often than men, even after eliminating pregnancy from the calculation. At the same time, the Marines' own research shows that mixed-gender units solve problems better and have fewer disciplinary headaches than all-male outfits.

"Units would be better off by having women in them," says David Barno, a retired three-star Army general who commanded all U.S. troops in Afghanistan from 2003 to 2005. "You get a better product when you've integrated men and women on staff, and when you've got women commanders." Nonetheless, if women end up on the front lines, "it's going to be a significant emotional event," Barno says. "You've got rifle squads and Marine infantry companies full of 18-year-old football players just out of high school, and there weren't any women on that football team—that's the psychology of a rifle squad full of young men."

Physical-fitness standards may eliminate a greater percentage of women than men, but they will also assure that all ground troops are up to the task regardless of gender. In the past, simply being a man was good enough. Standards, when they existed, were flimsy. "We kind of had good-ol'-boy, 'It's a road march at this speed,'" explained Lieut. General

PREVIOUS PAGES: GETTY IMAGES REPORTAGE

Bob Brown, who is responsible for Army leadership development, at a September gathering in Fort Benning, Ga. Anyone who can meet the new standards should be allowed to serve, he said.

"There will probably be some male soldiers in the infantry today that don't measure up, don't qualify to be the infantry," added the commander of the Army's 18th Airborne Corps, Lieut. General Stephen Townsend. "That's O.K. with me. It's also O.K. with me if there are female soldiers who qualify."

THE MARINES RESIST

IN CONTRAST WITH THE ARMY, THE Marines have dug in behind the idea that front-line units should remain all-male. "To move forward in expanding opportunities for our female service members without considering the timeless, brutal, physical and absolutely unforgiving nature of close combat is a prescription for failure," an internal Marine study completed in August concluded. "Those who choose to turn a blind eye to those immutable realities do so at the expense of our corps' war-fighting capability and, in turn, the security of the nation."

Gregory Newbold, a retired Marine lieutenant general, says that physical strength is only part of the combat calculus. If there is a time for men to be brutes, this is it. "Crude traits are kind of useful," he says of testosterone-laden camaraderie. "It's important that ISIS or [Vladimir] Putin knows the other side can be ruthless." And he says he worries that the sexual dynamics inherent in adding women to the front lines would dilute combat power.

In its key tests, the Marine Corps pitted all-male squads against mixed-gender units through nine months of assessments involving 350 Marines, including 75 women. All-male squads did better than mixed-gender units in 93 of 134 events. Mixed-gender units outdid their all-male counterparts in just two. There were no significant differences in performance in the other 39 events. "The majority of the operationally relevant differences occurred in the most physically demanding tasks, such as casualty evacuations, long hikes under load, and negotiating obstacles," an internal Marine assessment said. Infantry tasks, in other words.

MILITARY JOBS CLOSED TO WOMEN
(as a percentage of all slots)

1%
Air Force

2%
Navy

18%
Army

25%
Marine Corps

Brenda "Sue" Fulton, a former Army captain, says the tests were designed to produce lopsided results. The women in the mixed units weren't trained to the level of their male counterparts. "The Marines are tossing women into the deep end of the pool and saying, 'Compete with the varsity swim team,' " she says. The corps has "very low expectations" of its women because of "an institutional belief that women simply are not up to it," adds Fulton, a 1980 West Point graduate who chairs the academy's Board of Visitors.

The Marines do agree with the Army on one thing: the new standards will be a welcome chance to weed out male recruits who can't meet the demands of the infantry. Fitness tests "will serve to reduce some of the 'wastage' that occurs in our ground combat arms units due to Marines being physically incapable of meeting the demands of service," another internal Marine report said.

DECISION TIME

OTHER NATIONS, INCLUDING CANADA, Denmark, Germany and Norway, permitted women in combat beginning in the 1980s. Canada experienced no "negative effect on operational performance or team cohesion," a 2009 study found. But their presence is minimal. That's because many women—like many men—have no desire to risk their lives. Women account for fewer than 1 of every 100 soldiers in the Canadian army's infantry units. (They comprise 3% of the tanker force and 5% of artillery.)

Low numbers complicate the challenge of integrating women. Ample research supports the idea that lasting change requires an as-yet-unspecified critical mass of women serving in combat units. "One of the biggest challenges from an implementing point of view will probably be the tyranny of small numbers," says General David Perkins, the Army's top trainer.

Opening the combat ranks will also raise a couple of thorny legal issues: registration for the draft, and involuntary assignment to combat units. Women currently don't face either of these prospects. While the chance of a draft is unlikely, all men in the U.S. are required to register with the Selective Service when they turn 18. Because Congress ordered the registration of "male persons," it would have to pass new legislation if it wanted to include women.

And if women seek to take the final step toward full participation in the military, it hardly seems fair that they should be able to say "No thanks" if they're needed to fight. "Are we willing to cause women to serve in infantry units against their will, as we do men?" asked retired admiral Eric Olson, chief of U.S. Special Operations command from 2007 to 2011, at a July gathering. "About 30% of infantry units are men who didn't volunteer to be in front-line combat."

For now, it's unusually quiet on the Washington front. Defense Secretary Carter issued a directive on Oct. 2 instructing the military to remain mum as he mulls the divergent recommendations. But he seemed to tip his hand when he said in September, "Everyone who is able and willing to serve and can meet the standards we require should have the full opportunity to do so."

Pentagon officials believe that Carter, who never served in the military, will overrule the Marines' objections when he issues his decision. And the men of the corps will be expected to perform that time-honored acknowledgment of authority: a salute, along with a "Yes sir!" ◻

A NEW NEW HOPE: HOW J.J. ABRAMS BROUGHT BACK *STAR WARS* USING PUPPETS, GREEBLES AND YAK HAIR

By Lev Grossman

Photographs by Marco Grob *for TIME*

TO MAKE *THE FORCE AWAKENS*, ABRAMS RETURNED TO THE FUTURE OF THE PAST

BB-8

ASTROMECH DROID

Abrams was determined to use as little CGI as possible, so he made BB-8—a fully functioning robot—who has already become an iconic character.

Inside Building 29 on the Fox Studios lot in Los Angeles there is an enormous windowless room

containing a conference table, a giant screen and a good six meters of softly glowing consoles and monitors—the kind of room from which an intercontinental ballistic missile could plausibly be launched. Its official name is the Howard Hawks Mixing Stage, and at the moment it also contains J.J. Abrams and 22 other people who are making final tweaks to the audio of the new *Star Wars* movie, *The Force Awakens,* which will be in theaters on Dec. 18.

They pause on a moment when a Stormtrooper named Finn, played by the English actor John Boyega, takes off his helmet. As he does so there's a quiet *whoosh* sound, as of a vacuum seal being broken.

Question: Do Stormtrooper helmets form a seal when you put them on, which is then broken when you take them off? An engineer points out that both Luke Skywalker and Han Solo take off Stormtrooper helmets in the first movie with no *whoosh* sound of any kind. Abrams—compact build, serious mien, black-frame glasses, plaid shirt and *Daily Show* baseball cap that he doesn't take off indoors—considers.

"I know," he says finally. "But this is the future of the past." In the future of the past, Stormtrooper armor seals tight.

I have seen the future of the past, or about 20 minutes of it. In that 20 minutes—mild spoilers follow—a young woman named Rey, played by Daisy Ridley, sits disconsolately on a dead-end desert planet in the shade of a wrecked AT-AT, waiting for her life to happen. ("I know all about waiting," she says.) Her only companion is a friendly droid named BB-8. At the same time Poe Dameron, a captured rebel pilot played by Oscar Isaac, is being tortured by the sinister masked dark-sider Kylo Ren (Adam Driver) aboard a Star Destroyer belonging to the evil First Order, a military faction inspired by the Empire. Finn, the Stormtrooper, having realized that he wants to be one of the good guys, busts Poe out and together they steal a TIE fighter ("I've always wanted to fly one of these things," says Poe).

They crash-land on the desert planet where Rey lives. Poe is presumed dead in the crash, but Finn meets up with Rey and BB-8, who turns out to be carrying information vital to the resistance. The First Order is hot on their heels. They need to escape. There's a ship, Rey says, but it's "garbage"—a clapped-out old rust bucket. Pan over to the garbage ship. It is the *Millennium Falcon.* And scene.

If I'd seen that footage in a movie theater, I would not have asked for my money back, but when it's finished Abrams snaps out 50 or 60 separate notes on the audio effects alone. There is very serious talk about footsteps (the phrase *space floors* crops up), droid language, the muffled, Dopplered scream that accompanies the passage of a TIE fighter, the relative awesomeness of various hatch noises and how to get midrange frequencies in there for people who are going to one day be watching this on their iPhones. They are nothing if not thorough.

It's often said that the original *Star Wars* movies changed the movie industry, but they also changed something else: the way we make fiction onscreen. They were a new kind of illusion, one that felt real in a way that no fantasy or science-fiction movie ever had before. "When that giant spaceship flew over your head, and it was preceded by that kind of old-fashioned title crawl," says Harrison Ford, who played, and plays, Han Solo, "and then the rumbling sound of that spaceship, you were in the movie for approximately 30 seconds before you knew you were in for something that you had not seen before and that was gut-level engaging."

The universe of *Star Wars* didn't just feel real in the moment; it felt as if it had existed before the film started and would go on long after it was over. It felt as if it extended out beyond the visible frame of the image, on and on, world without end. "I remember when I was watching *Star Wars* when I was kid, and these two droids were walking along the deserts of Tattooine, and I *knew* they were there," Abrams says. "It wasn't some painted background on an interior set, it wasn't some lame visual effect, or even a great matte painting. You *knew.* They were really somewhere else." It was a new kind of world building, and it has influenced if not transformed every piece of popular entertainment since then, from *Harry Potter* to *Avatar* to *The Hunger Games* to *Game of Thrones*.

It was a powerful illusion, but it has proved to be an elusive one, difficult to reproduce. It's hard to put your finger on what makes it work. The *Star Wars* universe is a little like Narnia: even those who have been there can never be sure of getting in again. Since *Return of the Jedi* was released in 1983 it has yet to be demonstrated that it's possible to make another really good *Star Wars* movie. The prequel trilogy was a cautionary tale: not even George Lucas, the man who built the *Star Wars* universe in the first place, could bring it back to life. But it's interesting to watch Abrams try.

J.J. Abrams

DIRECTOR

Abrams, 49, co-created Lost, *created* Alias *and rebooted* Star Trek *before he took on* The Force Awakens. *"I wanted to feel that thing I'd felt when I was a kid watching this movie."*

Daisy Ridley

REY

Ridley worked out for hours every day to play Rey, who can take care of herself. "This misconception that girls who have muscles can't be feminine is ridiculous."

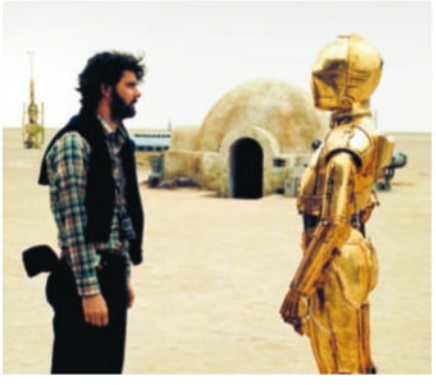
John Boyega

FINN

His character is Stormtrooper FN-2187, also known as Finn, who joins the resistance. "He's trying to figure out his place in this fight."

JEFFREY JACOB ABRAMS first saw *Star Wars* at the Avco Center theater in Los Angeles, at age 11. It's fair to say it made a big impression on him. "It was a confluence of greatness, all these levels of things working spectacularly together," he says. "It was a kind of reality that was not normally associated with fantasy or science-fiction stories, a level of filmmaking that was not typically associated with mainstream genre. And it had incredible heart. There was a sweetness to the story that gave the film this palpable sense of hope." Hope: it's the keystone concept in the *Star Wars* legendarium. One of the eternal mysteries of *Star Wars* is that it looks like science fiction, with robots and lasers and such, but at the same time it's set far in the past and has the dustiness and feel of ancient history. It catches you up in a double-reverse, a temporal anomaly subtler than anything in *Star Trek,* that leaves you with a strange nostalgic longing for the future. And what is hope but a longing for the future?

It's de rigueur to describe anybody taking over a beloved franchise as a die-hard fan, but Abrams genuinely does seem like a huge *Star Wars* fan. "On one of the first days that we showed him an X-wing," says Gary Tomkins, the art director on *The Force Awakens*, "we were talking about various technical details, and he said, 'Hey—just give me a minute. *I've got my own X-wing here.*' And suddenly the 8-year-old boy in him came out."



Lucas, left, wanted to remake Flash Gordon. *When he couldn't get the rights, he created a far greater mythology.*

Being the director, co-writer and co-producer of the first *Star Wars* movie in a decade is an amazing position for a grownup fanboy to be in, but it's also a delicate one. Abrams has come into a magnificent inheritance, but it is not unencumbered. Tens of millions of fans also share ownership of it, if not in a legal sense then in a moral and emotional one. Disney, which bought Lucasfilm in 2012, owns it too. "[Abrams] and I had dinner alone together, and it was primarily for us to raise a glass to what was about to become our future," says Bob Iger, Disney's chairman and CEO. "But it was also for me to look him in the eye, nicely, as a friend and say, 'Look, we just paid over $4 billion for this franchise.'" Iger says he was more personally involved with the making of *The Force Awakens* than with any movie since he became CEO 10 years ago.

Furthermore, the person Abrams inherited it all from is still around. The *Star Wars* movies have always been to an unusual degree the expression of Lucas' personal vision, and whatever else he is, Abrams is not Lucas.

For starters, Abrams is, it is generally attested, a considerably more verbal person than Lucas. "George doesn't really talk," says Carrie Fisher, who reprises the role of Princess Leia in *The Force Awakens*. "We were going to make a sign for him when he got sick at one point, saying FASTER AND MORE INTENSE, because those were his directions. J.J. is a very good communicator, so really in that sense he's the opposite." Adam Driver, who plays the Vader-esque Kylo Ren, notes that even with vast set pieces in play Abrams has a gift for changing direction and improvising in the moment. Everybody agrees that Abrams is funny and relaxing to be around. There are rumors of his beatboxing over the on-set PA system. The humor comes through: whereas in Lucas' movies the jokes were sudden isolated phenomena, like ball lightning, the humor in *The Force Awakens* is more organic, part of the fabric of the movie. Abrams' *Star Wars* is slightly warmer to the touch.

What Abrams and Lucas do share is an obsession with controlling minute details, in particular the minute details of *Star Wars*. "J.J. has always cared about the design process, but I have to say that on *Star Wars* he was different," says Michael Kaplan, who oversaw the costumes for the new movie. "He even once asked me where I was planning on putting a seam in a costume, which really made me laugh. I mean, no director has ever asked me that before." (Lucas wasn't involved with *The Force Awakens* after Abrams got on board, something he has expressed mixed feelings about. Abrams offered to show it to him early, but Lucas demurred. "He was an incredibly gracious guy," Abrams says. "He wanted to wait till it was done, because he's never gotten to see a *Star Wars* movie from the outside in.")

Another delicate matter: Abrams has to figure how to be true to Lucas' vision, and also how to avoid being true to the bits of Lucas' vision that didn't really work. Abrams is diplomatic about the prequel trilogy, but it's safe to say they weren't his primary model for *The Force Awakens*. (It's neither fun nor original to beat up on the prequels, but they really weren't very good.) "Even in the beginning, J.J. would say, 'I don't want it to be like the prequels, because I don't want it to be all cluttered and about senate embargoes and all sorts of middle-aged kinds of concerns,'" says Rick Carter, the movie's production designer, who has worked on basically every Hollywood megahit since *The Goonies*. "'I want this to be about the edge of the frontier, with real threats and real people.'"

The approach Abrams arrived at was to go back to the techniques Lucas used the first time around, the time that really mattered, all the way back in 1977. Abrams almost literally devolved the entire production of *The Force Awakens* technologically to an earlier era of filmmaking. He shot on film. Wherever possible he abandoned CGI in favor of models and

LUCAS: DILTZ-RDA/EVERETT COLLECTION; ABRAMS: © 2015 LUCASFILM LTD. & ™

Abrams, left, and Boyega on set. Abrams shot everything he could on location, rather than in front of a green screen, to heighten the sense of physical reality.

practical effects, and green screens in favor of actual sets and physical locations. "I wanted to feel that thing that I'd felt when I was a kid watching this movie, which was that this was actually happening," Abrams says. "So the decision was made very early on to build as much as we can and actually film it. And what that would do is obviate the need to try to make people believe it was actually happening. Because it simply would be happening."

There's both a logic to it and a funny perversity: what Lucas did then, with crude untried technology and minimal computer power, on a bare-bones budget and under desperate time pressure, Abrams has redone with all the time and money and computing power in the world. "We were very careful not to be overclever or overcomplicated or use too many sophisticated materials or techniques," says Neal Scanlan, who was in charge of the creature shop on *The Force Awakens*. "We wanted them to fit very much in the world of *New Hope, Empire* and *Return*—that dare-I-say precious world was one that we tried never to step beyond either visually or conceptually with technology."

It's almost like a historical re-enactment of the making of *Star Wars*. Abrams is engaged in a kind of cinematic archeology, digging back in time, in search of that original, primal dream.

IT HELPED THAT he had key members of the original cast on board. Lucas himself reached out to them in 2012. "I was happily engaged in other things," Harrison Ford says. "I did not think there was going to be another one. I never thought about it." As it happens Ford already liked Abrams—they'd worked together a quarter-century ago on *Regarding Henry,* when Abrams was a 23-year-old screenwriter. "It did occur to me that it might feel silly to run around in a belt and tight pants, tight boots and a 7-foot giant-dog suit, but in fact—this may be revealing about my character—it didn't feel funny at all. It was fun." (I ask him if he could have said no, given all the pressure from Lucas and Abrams and Disney and the fans. This produces a classic Han Soloism: "Sure, why not? I have money in the bank.")

Fisher has sometimes expressed ambivalence about *Star Wars*—she told Daisy Ridley in an interview, "Don't be a slave like I was," referring to the infamous gold bikini she wore in *Return of the Jedi*—but she didn't hesitate either. "I'm a female in Hollywood, and it's difficult to get work after 30, maybe it's getting to be 40 now," she says. "I also long ago accepted that I am Princess Leia. I have that as a large part of my identity." When I ask her if she missed *Star Wars* in the decades in between, she laughs. "That unstable I'm not."

Of the old guard, the one who waited the longest was Mark Hamill—he didn't call Lucas back for weeks. Contrary to popular mythology, Hamill has a busy acting career, and he won a BAFTA in 2012. "I assumed it was about publicity for whatever, Bluray release, 3-D conversion, I don't know," he says. "My wife said, 'What if he's going to do another trilogy?' And I just laughed." Even when he did call back, Hamill had to think it over. "I said, 'It's got to be solidarity—I bet you Harrison won't do it,'" Hamill says. "I probably still would have done it, but I would have had an out." Eventually he gave in. He shudders to think of the fan reaction if he hadn't. "Remember all the torch-bearing angry villagers that stormed the Castle Frankenstein? I had images of that. Substitute lightsabers for torches."

When Abrams was casting the new generation of leads, he went looking for relative unknowns, just as Lucas had. "In trying to remember that feeling I had seeing *Star Wars,*" he says, "it wasn't one of seeing people I had seen in other movies or recognized from other things as much as discovering new people in a new place." Other than that his only requirement was range. "Actors who could do everything. Except for singing, there was nothing that was not going to be required of them." (For the record, Hamill has lodged an official protest over the fact that there are no musical numbers in *The Force Awakens.*)

If you've seen John Boyega before, it was probably in the cult hit *Attack the Block* in 2011. In *The Force Awakens* he plays Finn, the recovering Stormtrooper, and part of his learning curve was just getting into the armor every day, seal or no seal. "It originally took about five people to do it," he says. "Best cosplay outfit I've ever worn." Ridley went through three months of physical training to play Rey, who in the 20 minutes I saw kicked three people's asses single-handedly. "She is very much alone," Ridley says. "There's no real excitement in her life. Every day is kind of the same—and then she gets drawn into this incredible adventure which is not only exciting and filled with creatures and space but is also incredibly emotional for her. She makes these connections with people she's never had." To Abrams that's one of the bedrock themes of the whole movie: "This is a story of disparate orphans who discover each other, and who discover that they can trust each other."

Kathleen Kennedy

PRODUCER, PRESIDENT OF LUCASFILM

Kennedy and Abrams prized the rough, physical look of the original movie. "You look at Star Wars *and you realize they got away with painted plywood."*

Ridley wasn't even particularly a *Star Wars* fan. Lupita Nyong'o, who won an Oscar for her role in *12 Years a Slave,* grew up in Kenya, where the *Star Wars* movies were shown on TV on public holidays: "I always associated them with time away from school." Nyong'o plays a mysterious CGI character called Maz Kanata. There's a sharp limit to how much the actors can say about the characters they play, which results in a lot of careful circumlocutions and awkward pauses. "I can tell you," Nyong'o says, "that she is a larger-than-life, strong character with a colorful past."

Oscar Isaac was already emphatically a fan. "We would actually memorize the fight scenes and try to reenact them with lightsabers, to a T," he says. "You know, like, *O.K., no, no, no he goes left, right, left, right and then down.*" Here's his heavily redacted sketch of Poe Dameron: "He's incredibly dedicated. He's perhaps sometimes a little overenthusiastic with wanting to prove himself as a pilot and so can sometimes find himself in slightly reckless situations. I think part of his journey is figuring out what a real leader is, what it means to be a leader, what it means to be a hero."

Among the new cast the most hardcore *Star Wars* fan was probably Gwendoline Christie, the 6-ft. 3-in. English actor best known for playing Brienne of Tarth on *Game of Thrones.* "I really was besotted with R2-D2," she says. "There was something about that robot—I couldn't work out why I was so attached to him." When she heard they were making a new movie, she began answering any and all emails from her agent, on any topic, with the words, "I want to be in *Star Wars.*" She got a meeting with Abrams and eventually won the part of Captain Phasma, who spends the entire movie encased in gleaming chrome Stormtrooper armor. "She's a Boba Fett–style character in that she isn't at the forefront of the action all the time," she says, "but she definitely has a lot of impact." She describes

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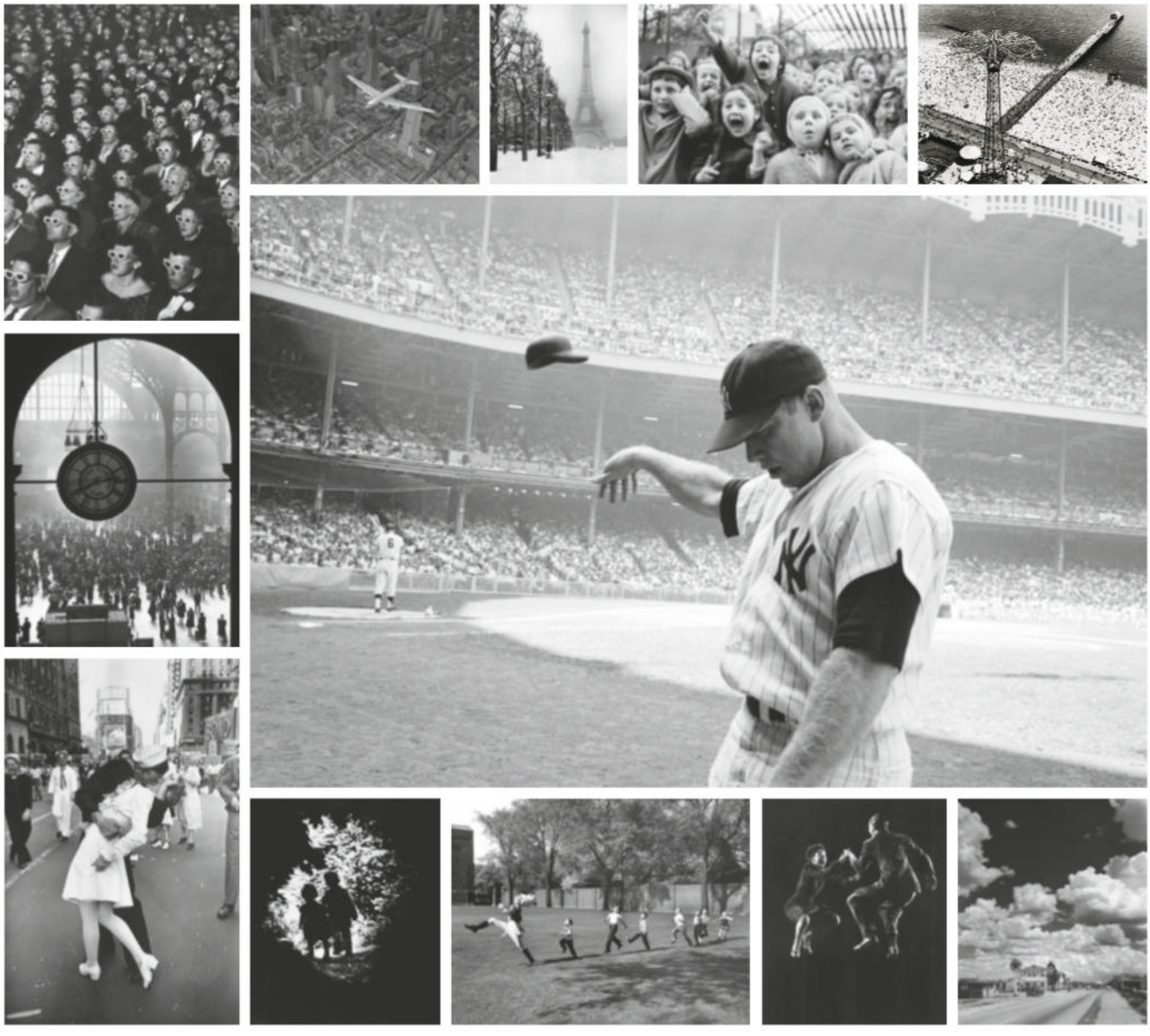

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Phasma as *Star Wars'* first female villain. "Being bad is just fun, isn't it now? Unfortunately, it came all too easily."

One imagines a kind of passing-of-the-baton taking place on set, from the first generation of *Star Wars* leads to the third, but nobody will cop to much in the way of mentoring. "I told Daisy that dating was difficult," Fisher says. "I never wanted to give anyone the anecdote, 'I slept with Princess Leia.'" Ford coached Isaac on how to pilot a spaceship, or at least how to look like you're piloting one. (On his first day Isaac was given a blueprint of an X-wing cockpit, laying out every button and what it had been used for in every film, including the all-important launch sequence. He still has it.) "With Harrison I remember there were these action things," Isaac says. "This was after he had hurt his leg, so I said, Have you been working out a lot? What are you going to do with that stuff, and all the shooting, and you have to jump over these boxes and run and do all that stuff? How do you think you're going to do that?"

"And he goes, 'I'm going to act it.'"

WE DON'T KNOW much about what's happening in *The Force Awakens* in terms of the larger galactic military and political situation, but we do know when it's happening. It's 30 years after the end of *Return of the Jedi*—the future of the past. It's clear that the Battle of Endor wasn't as decisive as we thought, because the stars are still at war. The Ewoks partied too soon. There's a New Republic, but the Empire-inspired First Order is still a force to be reckoned with.

Because so much time has passed, everything in the *Star Wars* universe—X-wings, TIE fighters, lightsabers, Stormtrooper armor—has had to evolve technologically. "If you imagine a Porsche 911 from the 1960s and a Porsche 911 from today, it's still recognizable as a Porsche 911, but it is a completely different beast," says Tomkins, the art director. "So if you look at an old X-wing with our new *Force Awakens* X-wing side by side, you'll find it's a little bit slicker, a little bit smoother. The engines obviously have changed. They're not two circles on top of each other; they're two semicircles." Tomkins is second-generation *Star Wars:* his father was an art director on *The Empire Strikes Back,* and he spent his 15th summer on the ice planet Hoth (a.k.a. a soundstage in the suburbs of London) making cardboard models of snowspeeders. Early in his career Tomkins himself worked as a draughtsman on *Phantom Menace,* which makes him one of the few people to have worked on all three trilogies, and as such a key repository of institutional memory. "We had very, very many meetings with J.J. looking for what became known as the *Star Wars* vernacular," says Tomkins. "The style of *Star Wars,* why it's so unique. It's not slick and it's not necessarily high-tech, but it has a certain look about it."

Part of his job was showing Abrams one concept drawing after another, hundreds of them, and waiting for him to say no, not that, or yes, this. It was yet another delicate balance for Abrams. "It was a very tricky thing, continuing what we inherited," he says. "What do we embrace? And when is embracing that thing simply repetition?" A key attribute of the *Star Wars* vernacular, though you wouldn't necessarily guess it, is simplicity. Everything's based on easy basic shapes—Carter, the production designer, describes the look as Norman Rockwell meets Edward Hopper. "The *Millennium Falcon* is a very simple shape," he says. "The Star Destroyer's very simple. The TIE fighter—the TIE fighter looks like a bat."

They weren't just evolving existing technology. Abrams and his team had to improvise new creations in the vernacular, most prominent among them the droid BB-8, which has already become the iconic ambassador of *The Force Awakens.* "We knew we had to have a star droid in this movie that was not a familiar face," Abrams says. "I just drew a sketch of him and believed that we could get an enormous amount of expression from the motion of these two spheres. We needed to feel that it was of that universe, so the top sphere, the dome of BB-8's head, is very much a reference to what we saw in R2—and yet not exactly that." (It's worth noting that with his broad rolling body BB-8 is better designed for a desert world than R2-D2 or C-3PO were.)

A lot of directors would have created BB-8 as CGI, but in keeping with the spirit of '77 Abrams had the droid physically built instead. Like the original Yoda, BB-8 is a puppet. "Having a droid as one of the stars of the movies that was being puppeteered, and physical and practical and tangible, allowed actors like Daisy to interact with it in a way that was 100% legit, because she was performing with someone who was performing with her." Rey has a special a bond with BB-8, and Ridley had to work out her own relationship with the droid. "I remember J.J. saying, 'He's not a child,'" she says.

BODY ARMOR AND PRINCESS LEIA HAIR

Three women cosplay as Princess Leia at a Star Wars *convention in 2007. The movies have gone beyond entertainment and become part of people's lives.*

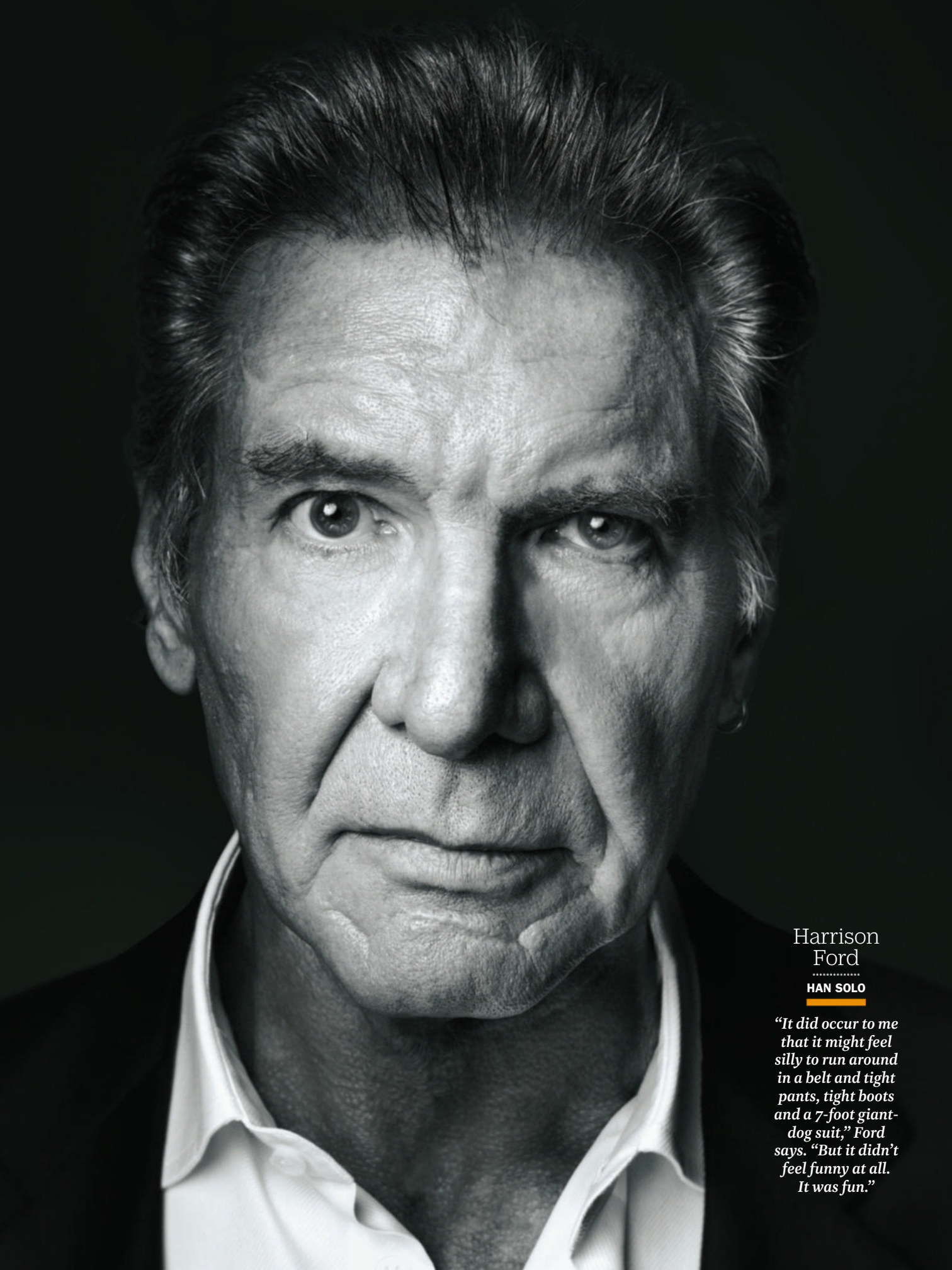
Assorted Stormtroopers, an Imperial pilot and a Rebel pilot stroll through a park in Germany. The Force Awakens *is set to open in nearly 70 countries.*

PRINCESS LEIA FANS: MARIO ANZUONI—REUTERS; STORMTROOPERS: FELIX HEYDER—AP

Carrie Fisher

LEIA ORGANA

Fisher returns as the iconic Princess Leia from the first trilogy. "I got so far into character," she says wryly, "that I can't get out."



Harrison Ford

HAN SOLO

"It did occur to me that it might feel silly to run around in a belt and tight pants, tight boots and a 7-foot giant-dog suit," Ford says. "But it didn't feel funny at all. It was fun."

"Obviously the impulse is, because he's small and cute, to infantilize him. But he's not a child—he's a droid with a mission."

CGI is the devil on the director's shoulder, always tempting him or her to stray from the simplicity of the *Star Wars* vernacular and clutter up the frame. "If you need a hundred villains and you're only a few keystrokes from having a thousand, and what the hell, the same price," says Harrison Ford, "what happens is you overwhelm the human experience with kinetics and you lose what I refer to as scale. What needs to be preserved is the emotional experience a human being can identify with." (I ask him if he thinks this was a problem in the prequel trilogy. This produces another classic Soloism: "Nice try, cowboy.")

When Lucas made *Star Wars,* computer graphics barely existed—the crudely animated pilots' briefing before the Battle of Yavin was the absolute state of the art. Lucasfilm's computer-graphics department would eventually be spun off, bought by Steve Jobs, and turned into Pixar, but at the time Lucas had no real options besides models and physical creatures. That had the effect of giving the droids and aliens and spaceships in *Star Wars* a sense of physical weight and presence that's missing from, say, the CGI disaster Jar-Jar Binks. There's no way you can make a movie like *The Force Awakens* entirely without CGI, but Abrams was determined to keep it to an absolute minimum—in effect, he took a world that had become virtual and forced it back into the realm of the actual. "I can tell you a lot of movies that I've seen and I've loved where I don't quite believe it's real," Abrams says. "You can feel somehow the artifice of it. You can't even necessarily quantify why it doesn't feel real, because everything that you're seeing is intellectually what it should look like. And yet somehow it's missing that thing." He used CGI as much for taking out the visible apparatus of the practical effects—wires, rigs, puppeteers—as he did for putting things in.

Oscar Isaac

POE DAMERON

Playing a pilot meant spending a lot of time in a simulated cockpit. "It's tough … there are only so many ways you can say 'Woo-hoo!'"

Lupita Nyong'o

MAZ KANATA

Her character is CGI. "It's the one chance you get to play a character not limited by your physical circumstances."

For *A New Hope* the crew scavenged interesting-looking spare parts from model kits and junkyards to make the ships and vehicles. Tomkins works the same way now. "It's found items, you know, be it parts from an airplane breaker's yard or from a plastics-molding company or a dismantled photocopier," he says. Tomkins likes to crack open washing machines and fridges and TVs in search of interesting shapes, which then become what are known in the trade as greebles: the tiny functional-looking details and asymmetrical sticking-out bits that encrust most technological artifacts in the *Star Wars* universe. "They're all glued on, and little pipes are added to them—it's kind of industrial collage, is the phrase that I like to use."

It gives the *Star Wars* universe something else too, something even subtler than solidity: an

uncanny familiarity. When you're watching *Star Wars,* you're often looking at car and airplane parts, the guts of electronics, bits of appliances, fragments of the everyday world, but they're so far removed from their familiar context that you don't recognize them—except that on some level you do. This is a subliminal but crucial component of the *Star Wars* vernacular that almost everyone on the production side talks about. "You might go to your local garage to have your car fixed, and there's the compressor in the corner and the heavy engineering equipment over there, the guys wearing some safety equipment," says Scanlan. "Or maybe you'd go to a hospital and see certain things there. These are all things that we are familiar with, and what *Star Wars* does so beautifully is to take those things and reinvent them, repackage them, reconceptualize them, in such a way that they become new and fresh and different to us—but we still have a connection, a visual umbilical between the world that we're living in in our everyday lives and the one we're watching on the screen." It's an effect not far, far away from Picasso's collages or Marcel Duchamp's ready-mades. It's the quotidian made strange and beautiful, the terrestrial made alien.

But the most important, most un-simulatable quality of real objects is their raw physicality, a stubborn intractability and imperfection that's profoundly convincing both to the audience and to the actors who have to work with them. "It helps you be in the moment," John Boyega says. "There are hidden gems within a performance when you're actually there that you can never get if you're on a soundstage with just blue screen, or if you're looking at a creature that isn't actually there. There's just something about the physical thing being in your face." This is especially true of Scanlan's creatures. "Each one is a little piece of theater," he says, "and I think that's what the viewer picks up on." He builds them out of foam latex and high-end aeronautical carbon fiber, silicones and urethanes. Chewbacca's skin—in case you ever wondered about it—is hand-knitted, as in with needles, and then each hair (it's a mix of yak hair and mohair) is knotted to it individually. As a result it moves with the physical heft of a real organic creature's pelt. In a very real sense the creatures become performers just as much as the actors are. "The baseline reality," Scanlan says, "is that they are there on the day, they are under the lighting, the atmosphere, everything about them is real."

Physical things can also get dirty, which is important. One of the most radical things about *Star Wars* in 1977 was that it wasn't clean. The spaceships in *Star Trek* and *2001: A Space Odyssey* and *Space: 1999* looked like they'd just come out of cellophane—they were practically mint in box—but everything in *Star Wars* felt scuffed and used and old. According to Chris Taylor's excellent history of the franchise,

Adam Driver

KYLO REN

Driver's character is evil, but he had fun. "It's so surreal to walk into a huge hangar and see a life-size TIE fighter."

Gwendoline Christie

CAPTAIN PHASMA

A lifelong fan, Christie was thrilled to be cast. "I was walking around thinking, I'm in Star Wars, *I'm in* Star Wars, *I'm in* Star Wars."

Mark Hamill

LUKE SKYWALKER

Hamill had misgivings, but he's glad to be back. "You're talking to someone whose initial dream of being in show business was to be a game-show host."

How Star Wars Conquered the Universe, Lucas had a phrase for it, "a used universe," and when he was making the first movie the cleaning crew used to come round during the night and wipe all the dust off the unclean "used universe" surfaces, so that it had to be reapplied in the mornings. The dirt gave everything an extra dimension, not of space but of time: the objects in the *Star Wars* universe had a history that stretched back before the start of the movie. "I think it's sort of holographic," Abrams says. "Whether it was references to the Clone Wars, which of course you wouldn't have a clue about, or it was the wear and tear that was on a particular ship or a droid, all of these things implied this very rich history from which the story came."

Immense care goes into creating that wear and tear. Kaplan, the costume designer, had an entire department devoted to distressing the clothing in *The Force Awakens.* "There's nothing better to bring you into the world of believability than when clothes look like they've been worn quite a bit," he says. "You won't see brand-new soles running through a scene or when a character puts his feet up. It's not a fashion show." One of the toughest scenes to create was the crash site of Finn's and Poe's TIE fighter. "We had to get two trenches dug in the sand in the middle of a desert in Abu Dhabi, about 800 feet long, and then add debris that had fallen off the wings," Tomkins says. "That particularly had a lot of weathering and distressing around it." Each bit of debris was hand-painted with its own individual damage.

One way to gauge the power of the *Star Wars* universe is that although nobody really knows what *The Force Awakens* is about, they don't really care that they don't know. "Normally, when a movie comes out the most important thing is who's in it and what's it about," Carter, the production designer, says. "What's interesting about *Star Wars,* this one, is that you can see that people don't even really know who's in it. You don't know what it's about, you don't know the narrative—but you know what it feels like to be in the movie." There are stars in *Star Wars,* but the universe is bigger than them. The universe is the superstar. "There's such a thing, in a weird way, as the spirit of place. You can feel it. There's an invitation to come and be a part of this world."

OF COURSE there's also a story going on in that world. From what I've seen so far, that story is, just like the spaceships and creatures, a collage of the familiar, reconfigured. There are recognizable elements from *A New Hope:* a young person stuck on a nowhere desert planet; a droid carrying secret information vital to the resistance; a masked adept of the dark side interrogating a resistance fighter—Kylo's banter with Admiral Hux, played by the ubiquitous Domhnall Gleeson, even has a strong Vader–Grand Moff Tarkin vibe. The repetition is, oddly, pleasant rather than tiresome. The recycled plot elements have the feel of a theme being reprised toward the end of a long symphony.

Some of the repetition makes intrinsic logical sense: the characters are inheriting the past, just like Abrams is. "This is in a world where the bad guy is going to be cognizant of Darth Vader," he says, "and when the bad guys have a massive weapon that can destroy a star system, they're going to reference the Death Star, because this is their history too." But it goes beyond that. It's there for people to recognize—it's nostalgia for the future. Back in the Howard Hawks room, working through the audio track, there's a moment when a couple of Stormtroopers spot Finn and Rey, and one of them says, "Blast them!" It's a little scrap of audio lifted intact from a scene in *A New Hope.* (Abrams decided to move it, but it'll still be in the finished movie. Probably.) At times Abrams even reaches beyond the *Star Wars* universe. Singling out the sound of a ringing bell, he says, "You know why I like it? It reminds me of *E.T.*" This is both a brave new world and a long-awaited homecoming.

There's a robust academic literature devoted to analyzing the meaning of the first two *Star Wars* trilogies, which makes illuminating if occasionally painful reading. In a lot of ways the movies are period pieces, and like a lot of period pieces their politics haven't aged particularly well. It's entirely possible to read *Star Wars* as a movie about white men fighting to regain their rightful position as rulers of the universe, against a man who, if he's not actually black, wears all black and has the voice of a black man. (Vader was voiced by James Earl Jones.) With a few notable exceptions—Princess Leia, Yoda, maybe Admiral Ackbar—women and nonhuman races are relegated to the sidelines. Human males run the show. *Star Wars* is framed as a story about revolution, but in some ways it's also a fable about maintaining an old worldview of race and

A NEW HOPE, AN UNEXPECTED HIT

Fans lined up in front of the Avco Center theater in Los Angeles in 1977. Abrams saw Star Wars *there that year "between five and 10 times."*

At the 1978 Academy Awards, Star Wars *lost out to* Annie Hall *for Best Picture but still had 10 nominations and seven wins, including one for Best Original Score.*

MARQUIS; R2-D2: AP

gender. The prequels tried to balance the slate a little (Queen Amidala, Samuel L. Jackson) but ended up just making it worse (Jar Jar Binks, the Trade Federation and, when you think about it, Queen Amidala).

Obviously, Abrams—and Disney—are conscious that times have changed. "J.J. can't rely on going in and making a movie that just calls upon everything that came before," says Kathleen Kennedy, president of Lucasfilm. "He has to come up with new ideas, new points of view, and he has to move it from 1977 to 2015." The casting alone is more diverse. "It was very important to me that this movie look more the way the world looks than not," Abrams says. Women figure in a more dynamic, physically powerful capacity. Gwendoline Christie points out how rare it is to have a female character dressed the way Phasma is, totally unrevealingly. "It felt to me that here was a character where we would respond to her due to her actions and what she represented rather than a more conventional delineated flesh outline," she says. "That felt really, really progressive to me. I'm very proud to play this part." We're a long way from the gold bikini.

On another level *Star Wars* is also, like a lot of science fiction, about how humans relate to technology. This is an open-source, hackable, homebrew-computer-club world. When a droid goes on the fritz, Luke doesn't take it to the genius bar, he repairs it himself. When something goes wrong with the *Millennium Falcon,* Chewie pops open a panel and gets up in there. Interestingly, the technology that looks most like our glossy, sealed, Apple-dominated present belongs to the Empire. That gap in C-3PO's golden skin, for example, with the wires showing through between his abdomen and his pelvis—Jony Ive would never have signed off on that.

But the heart of *Star Wars* is and always has been the ghost in the machine, the human trapped in the Stormtrooper armor. "I'm not so much interested in science fiction as I am in human, emotional stories," Ford says. Hollywood movies tend to explore either a fascinating, spectacularly CGI'd outer world or the textured inner worlds of a character, but rarely do you get both worlds at once. You do in *Star Wars.* Even if the plot isn't necessarily the most original thing anybody's ever written—it toes the Joseph Campbell party line pretty closely—the characters have a rough, vital complexity. There are life forms on board. "They're not superheroes," Fisher says. "Good people do bad things, and there are bad people who do good things. We got 'em all in *Star Wars.*"

And what those people do matters. They're oddballs and misfits, but their actions disturb the universe. "It was one of the things that got me most excited about being involved with this," Abrams says. "The idea that there would be a new generation of young people, a new generation of nobodies. That was what *Star Wars* was for me, so wonderfully: a story of desperate nobodies who became somebodies."

As Lucas discovered, there is a whole world out there of people who want to feel like somebodies, and *Star Wars* gives them a world where that can happen. The point of Abrams' effort is to make that world one they can believe in—a world so plausible, so tangible, that they can almost step into it.

It won't be a new world, not the way it was in 1977. It's not like we've never seen this Jedi mind trick before. In a sense, Abrams is restaging a revolution that already happened, decades ago. But while *The Force Awakens* won't have the element of surprise, it does have another advantage, which is that even without having seen it, people already love it. They want this Jedi mind trick to work on them. On the first day tickets were available, Oct. 19, Fandango reported that *The Force Awakens* octupled the previous record for advance sales set by *The Hunger Games;* at the theater chain AMC the factor was 10. One thing almost everybody involved with the movie wanted to talk about was what it's been like getting up in front of fans: the outpouring of enthusiasm has been unlike anything they've ever experienced, even the veterans. Hamill was at the *Star Wars* Celebration in Anaheim, Calif., in April when they played the new trailer. "To see that many people transported with joy just for a few minutes was so overwhelmingly satisfying for me, I got the chills," says Hamill. "I was choked up. I thought, Wow. So lucky. I'm so lucky."

Christie's first experience of it was at Comic-Con in July in front of a crowd of 6,000. "There was a feeling in that room, and it was palpable," she says. "I talked to J.J. after and said, What is that feeling everyone has? It isn't hysteria. It has a real intensity, it has a euphoria—but what is it? Everyone clearly has such a love for this, but what is it?"

"And J.J. said, 'It's hope.'"

FINE ART, STREET ART

Visitors at the 2002 exhibit "Star Wars: Magic of Myth" at the Brooklyn Museum saw original artwork, costumes and props, including the puppet of Yoda.

Darth Vader and Chewbacca eat pretzels on a San Francisco street in 2015.

YODA: REUTERS; DARTH VADER: ROBERT GALBRAITH—REUTERS

R2-D2

ASTROMECH DROID

A non-humanoid who speaks only Binary, R2-D2 still has more personality than most people. The unit in the new movie was built by members of the R2-D2 Builders Club, a hobbyist group.

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'FOR MOST OF ITS COMPACT 90 MINUTES, MISERY *IS SHREWD AND GRIPPING.'* —PAGE 86

A vengeful whale inspires awe and terror in Howard's unfashionable but gallant film

WARNER BROS.

MOVIES

In the Heart of the Sea—vintage valor from a whale tale that's no fluke

By Stephanie Zacharek

IN OLDEN TIMES—AND NOT IN A galaxy far, far away but in this one—boys and sometimes girls would thrill to tales of adventure set in the jungle, in the Old West, on the surface of a highly imaginary Mars or, perhaps best of all, on the high seas: where men brave enough to set out in fragile wooden vessels would find themselves at the mercy of disgruntled sea beasts and capricious weather patterns. Ron Howard's *In the Heart of the Sea*—adapted from Nathaniel Philbrick's rousing 2000 book of the same name, about the 1820 destruction of the whaling ship *Essex* by one exceedingly pissed-off creature of the deep—is that kind of adventure story.

The picture is sometimes wayward and unwieldy, its dialogue creaky and awkward, like an amateur's attempt at scrimshaw. ("It's he," says one whaler. "Yes, it's him all right," says another.) But in a movie climate rife with superhero reboots and rehashings of childhood favorites, it's a small marvel that *In the Heart of the Sea* exists at all. Who cares anymore about the sea, or sailors, or whales who decide, with an almost biblical vengeance, that it's payback time? Howard cares, and his movie, flawed as it is, is so unfashionable that it's almost gallant.

Chris Hemsworth and Benjamin Walker star as Owen Chase and George Pollard Jr., first mate and captain, respectively, of the doomed *Essex*. Chase, an experienced whaler, had hoped for the captain's post. Pollard, the son of an esteemed officer, has merely inherited the job, and the two men clash. Pollard has no natural leadership

capabilities. Chase has the crew's respect from Day One. He makes it his duty to toughen up the ship's greenhorn first mate, teenager Thomas Nickerson (Tom Holland), at one point sending the timid, smallish lad down into the cavelike head of the crew's first kill, the better to extract every drop of precious oil from its stinky, mucusy interior.

That kid will grow up to be a dissolute man who spends his nights drinking and then obsessively erecting miniature ships in the empties—he's played by Brendan Gleeson, and when we first meet him, the *Essex* tragedy is 30 years behind him and haunting him still. He's visited in his Nantucket home by a bewhiskered, thoughtful-looking fellow who, it turns out, is Herman Melville (Ben Whishaw, who has the face of an ardent listener, inquisitive and receptive). Melville, formerly a whaler, has an idea for a book and wants to learn more about the disaster from one of its few survivors. (Chase's 1821 account of the event, *Narrative of the Most Extraordinary and Distressing Shipwreck of the Whale-ship Essex,* partly inspired Melville to write *Moby-Dick.*)

Of the 20 crew members aboard the *Essex,* only eight came home. They had endured some 90 days at sea, far off the coast of South America, with insufficient water and food rations. The tale is at times thrilling and distressingly bleak. (Howard is discreet in handling some of the grislier details, but you might think twice about taking younger or sensitive kids.) Mostly, though, Howard and cinematographer Anthony Dod Mantle capture the workaday routine of life at sea with brio. An early scene shows the crew setting sail, mapping out the process in a crisply edited mosaic of whirring, unspooling rope and snapping canvas. And in the finest sequence, Chase and crew pack into a small, tipsy-looking whaling boat to circle and kill their first whale. Heavy on CGI, this scene is a whaling reverie. Rainbow droplets of water dot a sky of painted clouds as the men, balanced in their little boat, stab away at their quarry with harpoons. The scene has a storybook glow, like an N.C. Wyeth illustration, as well as integrity. We can't re-create historical events exactly the way they happened, so why not make them into our dream of history? If the movies don't give us that freedom, what does? When that whale is vanquished, Howard marks its death with a despairing visual: water from the poor creature's blowhole is mingled with blood, splashing the men's faces like unholy rain.

And then there's the sperm whale who took down the *Essex,* a mottled-white leviathan with a mad, broad forehead and tiny, judgmental eyes—his side eye is something to be feared. He's the uncompromising star, with no clue that the movie around him is out of fashion—and what does he care if it is? The courage of his conviction makes all the difference.

Zacharek is TIME*'s new film critic*

Hemsworth plays first mate Owen Chase, whose account partly inspired Moby-Dick

MOVIES

A Hitch in the history of filmmaking

KENT JONES' FLEET, STURDILY poetic documentary *Hitchcock/Truffaut* is partly a story about two filmmakers, but mostly it's the story of a book: in 1962 French director François Truffaut, then 30, sat down with Alfred Hitchcock, 63, for a weeklong chat that would result, four years later, in a near sacred text for movie lovers, one that would influence many of the filmmakers whose work we enjoy today.

Jones draws from the original interview tapes—adding a rigorous selection of film clips—to show how that book, titled *Hitchcock* in the U.S., took shape. He also rounds up a clutch of filmmakers who have taken inspiration from it, including Martin Scorsese, David Fincher, Richard Linklater and Wes Anderson, whose personal paperback copy has been so well loved that it's now held together with a rubber band. "It's not even a book anymore," he says. "It's, like, a stack of pages." This is a jewel box of a movie for anyone who loves either Hitchcock or Truffaut—or better yet, both.

—S.Z.

Hitchcock's summit with Truffaut began on his 63rd birthday

IN THE HEART OF THE SEA: WARNER BROS.; HITCHCOCK/TRUFFAUT: COHEN MEDIA GROUP

Dogs bark, but the market rolls on for Carell, center, and Gosling, right

MOVIES

The Big Short knows why your rent is too damn high

IN 2007, ONE YEAR BEFORE THE AVARICE OF THE BANKING industry spurred a devastating market collapse, director Adam McKay shocked the world with an unprecedented portrait of greed and corruption. In his potent 2-min. 21-sec. drama *The Landlord,* a wolf in Baby Gap clothing—played by McKay's then toddler Pearl, terrifying in a ruffled blue pinafore—shakes down a distraught Will Ferrell for back rent she knows he can't pay. Discomfiting as it is, *The Landlord* was just a run-up to *The Big Short,* McKay's serrated true-life tragicomedy about four outlier investors who foresee the subprime-mortgage meltdown and cannily set out to short the housing market—only to realize, to their horror, that the system they've managed to game is so rotted through that millions of Americans will soon lose their homes and jobs.

Christian Bale plays Michael Burry, the one-eyed savant who, by scrutinizing reams of data, first spots hidden cracks in the housing market's foundation. Steve Carell is renegade hedge-funder Mark Baum, who takes Burry's research even further, uncovering sickening global ramifications. Ryan Gosling and Brad Pitt show up as, respectively, a slick Wall Streeter with untrustworthy hair and a reclusive former banker with a penchant for organic produce and colonics.

McKay approaches this adaptation of Michael Lewis' book with wit, energy and a surprising degree of clarity. But if the movie is a crackerjack entertainment, it's one with a conscience. McKay invites us to laugh at the meltdown's abundant absurdity but makes sure the bitterness of the joke lingers. Pearl the landlord even surfaces, briefly, in a greed-is-good montage. In retrospect, this tiny tyrant doesn't seem like such a bad egg. We just didn't know how good we had it. —S.Z.

McKay invites us to laugh at the meltdown's abundant absurdity but makes sure the bitterness of the joke lingers

THE BIG SHORT: PARAMOUNT; YOUTH: 20TH CENTURY FOX; A VERY MURRAY CHRISTMAS: NETFLIX

TIME PICKS

MUSIC
In honor of the centennial of Frank Sinatra's birth, Tony Bennett, Usher and others will pay tribute to the crooner on the special ***Sinatra 100: An All-Star Grammy Concert,*** airing on CBS Dec. 6.

MOVIES
In the tender drama ***Youth*** (Dec. 4), Michael Caine and Harvey Keitel play lifelong friends grappling with how to squeeze meaning out of life, even in its final chapter.

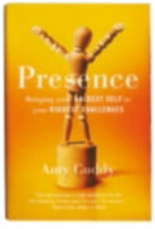
DANCE
On Dec. 4 the **Alvin Ailey American Dance Theater** will kick off its season with *Awakening,* a richly textured ensemble piece by artistic director Robert Battle.

TELEVISION
Bill Murray plays himself in the star-studded (Amy Poehler, George Clooney) special-within-a-special ***A Very Murray Christmas,*** premiering on Netflix Dec. 4.

EXCERPT

Strike a power pose—but do it in private

By Amy Cuddy



CAN TAKING CONTROL of your body language help you become happier and more successful? In the time since my collaborators, Andy Yap and Dana Carney, and I first published our experiments with power posing in 2010, there has been a substantial amount of inquiry into this and closely related body-mind phenomena, which together illuminate the many benefits of adopting expansive, bold poses and upright, good posture.

A lot of the research uncovers something astonishing. It's not only bold power poses that have an effect. Even very subtle types of expansion—like simple, good, "sit up straight" posture—can do the same sorts of things. Expansive movement—and even vocal expansiveness, like speaking slowly—can affect the way we think, feel and behave. Our presence.

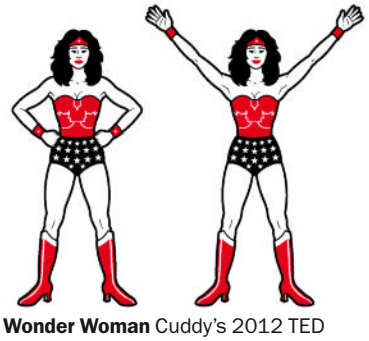
Carrying yourself in a powerful way directs your feelings, thoughts, behaviors and body to feel powerful and be present (and even perform better) in situations ranging from the mundane to the most challenging.

But is our presence apparent to the people with whom we interact? And does it really improve our performance in a measurable way? We decided to do another study. We hypothesized that engaging in preparatory power poses before a stressful job interview would improve presence, which would lead to more favorable evaluations of performance and more favorable hiring decisions. Why before? Because adopting big power poses during social interactions often backfires: it's not only strange; it also makes people uncomfortable. Imagine meeting someone for the first time as they stand in the victory pose or sit with their feet on a table and arms akimbo. Now imagine a job candidate doing that while you're interviewing her.

How your body shapes your mind

Powerless Cuddy and her colleagues found that drawn-in poses lowered testosterone and raised cortisol

Powerful By contrast, expansive postures led to positive psychological and behavioral changes



Wonder Woman Cuddy's 2012 TED talk on how placing arms akimbo or "starfish up" can be empowering has been watched nearly 30 million times

After arriving at the lab, subjects were told they would be participating in an intense mock interview for their dream job. They had a short time to prepare a five-minute response to the question "Why should we hire you?" They were told they'd be presenting their answers as speeches to two trained interviewers who would be evaluating them. They were also informed that they'd be videotaped and judged later by a separate panel of experts. And they were told they could not misrepresent themselves and had to speak for the entire five minutes.

The two judge-researchers, who wore lab coats and held clipboards, were trained to give no feedback of any kind—just neutral expressions. Receiving no feedback from a listener is often more disturbing than getting a negative response.

While preparing their speeches, the subjects were asked to adopt either the high-power or low-power poses that we'd used in earlier studies. They did their posing before the interviews, not during—a critical feature of this study. Each interview was recorded on video, and the recordings were evaluated by three pairs of judges who had no idea what our hypothesis was or anything else about the experiment. This is important.

Two of the judges evaluated the interviewees for performance and hireability, two judges evaluated the interviewees for the quality of the verbal content of their answers, and two judges evaluated them for the variable I was most interested in: the applicants' nonverbal presence (confident, enthusiastic, captivating and not awkward).

As expected, the subjects who prepared for the interview with high-power poses—the more presence our job interviewees displayed—the better they were evaluated and more strongly they were recommended for hire by the judges. But here's the catch, as we found in a related follow-up study: presence mattered to the judges because it signaled genuineness and believability; it told the judges that they could trust the person, that what they were observing was real. In short, manifest qualities of presence are taken as signs of authenticity. The more we are able to be ourselves, the more we are able to be present. And that makes us convincing. Your body shapes your mind. Your mind shapes your behavior. And your behavior shapes your future. Let your body tell you that you're powerful and deserving and you'll become more present, enthusiastic and authentically yourself.

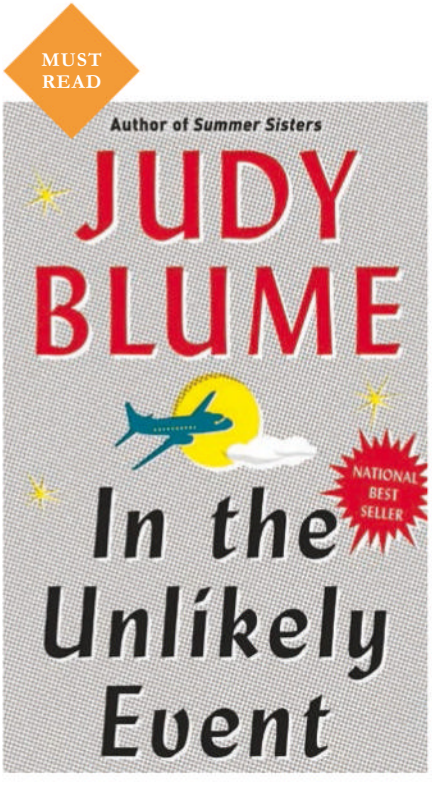
Cuddy is a social psychologist and associate professor at Harvard Business School. Excerpted from Presence *by Amy Cuddy. Copyright © 2015 by Amy Cuddy. Reprinted with permission of Little, Brown and Company.*

ILLUSTRATIONS BY BROWN BIRD DESIGN FOR TIME

GIFT GUIDE

Buzzy Gifts for Book Lovers

2015's most buzzed about reads—from runaway best sellers to cult classics in the making—prove to be particularly thoughtful and timely this holiday season. Cross the readers off your list with these last-minute picks at Amazon.

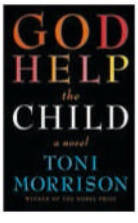


The author who hooked us with coming-of-age classics and lovable lines ("I must, I must, I must increase my bust!") makes a moving comeback in her first adult novel in nearly two decades. **Judy Blume's** IN THE UNLIKELY EVENT offers a fictionalized tale of the profound losses and joys brought on by unexpected events that tarnish a suburban New Jersey town (Blume's native) at the start of the Cold War. With her distinctively humanizing characters and plotlines, *In the Unlikely Event* is one for the grown-ups who have had time to log the heartwarming life lessons learned from a novelist both celebrated and controversial.

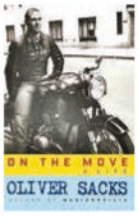
Anyone who experienced that awkward phase will laugh—and cringe—reading UNABROW: MISADVENTURES OF A LATE BLOOMER by **Una LaMarche**. A memoir that falls between highbrow and lowbrow, clumsily, unforgettably and with great heart.

Founder and CEO of KIND Healthy Snacks **Daniel Lubetzky's** DO THE KIND THING is part manifesto for compassionate entrepreneurship, part handbook for happiness and wholly ideal for socially conscious readers.

Kazuo Ishiguro's THE BURIED GIANT—the Booker Prize winner's first novel in a decade—tells a luminous, resonant tale of memory, love, vengeance and war set in a mystical Britain of many centuries ago.



The first of the Nobel Prize winner's novels to be set in our current moment, **Toni Morrison's** GOD HELP THE CHILD will add a provocative, moving new classic to any book lover's collection.



Published just months before the renowned neurologist/author's death, ON THE MOVE: A LIFE by **Oliver Sacks** is as brilliant, gripping and infused with restless energy as Sacks himself.

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TELEVISION

The *Transparent* trap—more angst, less insight

By Daniel D'Addario

IN *TRANSPARENT'S* SECOND SEASON, WHICH begins streaming on Amazon on Dec. 11, a character whom the Pfefferman family has treated somewhat shabbily crashes a party they're hosting to deliver a message: "You are all monsters!" They're not. But there's a reason the line is so thrilling. It's too rare that any perspective on the Pfeffermans other than the show's own extremely forgiving one sneaks in. The family is now more than ever a closed circuit, and *Transparent* may be running out of things these people can teach us in the vacuum of their intra-family affairs.

Transparent's debut season won Amazon its first Emmys and Golden Globes and contributed to a heightened visibility of transgender people. (That visibility didn't come without controversy: the trans community protested the casting of a male actor, Jeffrey Tambor, to play the show's central character, Maura.) At its best, the show is a compassionate look at the struggle to define oneself, from gender identity to, in the case of Maura's kids, finding one's place in early middle age.

Maura, in Season 2, debates whether to get gender-reassignment surgery, a reminder that the work of defining one's identity only begins with coming out. The presence of her friends, transgender women with far less cultural and economic capital, is a saving grace, both from the standpoint of politics—different perspectives on the trans experience matter in a show like this—and of entertainment. For all that is tough, they at least have a sense of humor about themselves.

By contrast, watching the rest of Maura's family is drudgery. Her children have commitment issues that differ only on the surface. It's understandable, given their upbringing, but once the Psych 101 work is done, we're still stuck with these mopes. Their love lives, like nearly every other aspect of the second season, have no real stakes as couplings swirl from off to on again at random. Who cares if Sarah (played by Amy Landecker) will go back to Tammy (Melora Hardin) after calling things off during their wedding reception? If they do reunite, they'll break up again in two episodes.

Maura's relationship with ex-wife Shelly (Judith Light) is similarly overplayed; Light is too big by half as she elaborately performs girl-friendly camaraderie. The best TV series tend to open up as they go on; *Transparent*, with Shelly's increased screen time and the children's repetitive story lines, has grown even more myopic. With few exceptions, including random flashbacks to Weimar-era Berlin, the show feels more claustrophobic than ever.

MEET THE PARENTS Light, left, and Tambor play ex-spouses Shelly and Maura Pfefferman, whose relationship has become a focal point of the award-winning series from Amazon

JENNIFER CLASEN—AMAZON STUDIOS

Midway through the season, we get another outsider's perspective, when one of Maura's friends points out her privilege. "We don't all have your family. We don't all have your money. I'm a 53-year-old, ex-prostitute, HIV-positive woman with a d-ck." She's right—there are certain experiences Maura can't intuitively understand. And they're less widely covered and more interesting than upper-middle-class anomie. In confining such painful realities to brief moments, *Transparent* retreats from its initial promise.

D'Addario is TIME's new television critic

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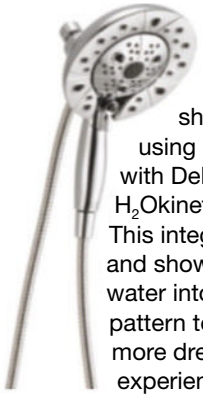

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Ansari plays an actor who stars in TV commercials

TELEVISION

Netflix's new love story

AZIZ ANSARI MADE HIS mark on TV as the outsize Tom Haverford, a materialistic city employee on *Parks and Recreation.* Writing for himself, Ansari has toned things down with the new sitcom *Master of None,* now streaming on Netflix. It's an endearingly earnest look at the state of modern love that still fits in plenty of big ideas.

The show, co-created by Ansari and Alan Yang, stars Ansari as Dev, an aspiring actor looking for love and really good tacos. Over the 10 episodes, Dev goes on dates (including a memorable fling with a food critic played by Claire Danes) and falls, gradually, in love with a music publicist (Noël Wells).

These characters' jobs, along with their apartments and nights out, situate this in a fantasy New York City, one that's as pleasant as Rachel Green's or Carrie Bradshaw's. Otherwise, *Master of None* keeps things real, about the painful aspects of seeking love and life as a South Asian actor in a prejudiced industry. That Ansari has, yes, mastered both in a single series elevates him from gifted comic to the first great millennial showrunner.

—DANIEL D'ADDARIO

THEATER

The thrill is back: *Misery* breaks both legs on Broadway

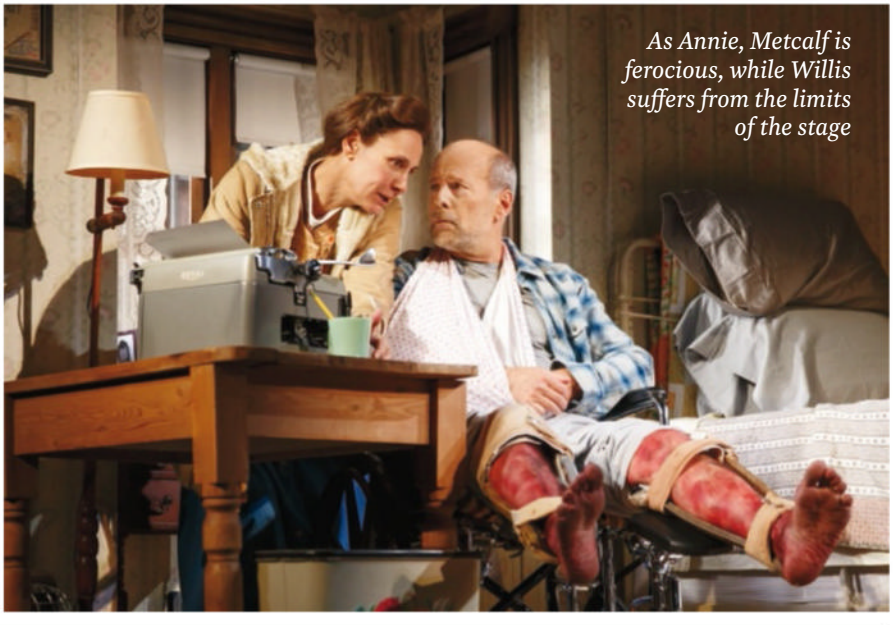
LARDED WITH REVIVALS, MOVIE ADAPtations and Hollywood stars, Broadway is largely a play-it-safe zone these days. Yet *Misery*—which boasts both a presold property and a bona fide movie star, Bruce Willis, in his Broadway debut—is a riskier venture than one might think. For one thing, it's that rarest of theater specimens: a go-for-broke horror-thriller. Sure, there's the occasional murder mystery or twisty psychodrama. But a story that puts its protagonist in real physical peril, ratchets up the suspense and culminates with a violent confrontation rather than just heated words? On the screen, from James Bond to *The Hunger Games,* it's as easy as next week's box office smash. Onstage, next to impossible.

In some respects, *Misery* is ideally suited to the stage, with just two main characters and the action confined to a remote cabin, where a famous romance novelist, hurt in a car crash, is nursed back to health and then terrorized by his "No. 1 fan." It has a showy and surefire leading role in the deranged Annie Wilkes, and stage vet Laurie Metcalf has a whale of a time with it. She's less overtly nutty than Kathy Bates, who won an Oscar for the 1990 film, but more down-to-earth, ferocious and frightening.

The problem is on the other end of the hypodermic needle. As bedbound writer Paul Sheldon, Willis is bland and remote. But the fault lies less with his competent performance than in the limits of the stage. Paul is largely immobile throughout most of the play, and we depend on seeing his facial reactions: the rising fear, the silent winces and winks and wheels-turning-inside cogitation that James Caan conveyed so effectively in the movie. But he had closeups.

Still, for most of its compact 90 minutes, *Misery* is shrewd and gripping. The film's screenwriter, William Goldman, wrote the efficient adaptation, and director Will Frears manages the claustrophobic tension well, helped immensely by David Korins' revolving set, which transports us through the house as Paul makes futile attempts at escape. *Misery* seems to have caused nothing but misery for most critics, who never much cotton to these lowbrow genre pieces. But I found it a startling and satisfying break from Broadway routine. Which I guess makes me its No. 1 fan.

—RICHARD ZOGLIN



As Annie, Metcalf is ferocious, while Willis suffers from the limits of the stage

MASTER OF NONE: NETFLIX; MISERY: JOAN MARCUS

Ecuador

Journey to the Center of the Earth

It should come as no surprise that Ecuador—encompassing an expanse of the Andes; partly shrouded by the Amazonian rain forest; sitting abreast the Pacific coast; and laying claim to the famed Galápagos Islands—is often cited as being four worlds within one.

In a move to steer away from reliance on oil revenues, Ecuador has implemented measures to diversify the economy and has seen the non-oil economy grow at an average of 5% in a 10-year period. Trade and the private sector are flourishing as a result. Marcelo Ramírez, managing director of trade specialists Marglobal Global Maritime Agency, explains the strength of industry in Ecuador: "The growth of exports in Ecuador is based on the excellence of our products. Our strategy is focused on helping the most important commodities seek new approaches to logistics." Aside from trade, policy reforms passed in 2008 have also been integral in the country's reformation and rebirth, particularly as they have a strong focus on the sustainable development for the nation.

At the center of this development lies human capital. Yachay: City of Knowledge, a planned city, is primed to become Latin America's answer to Silicon Valley. Héctor Rodríguez, managing director of the project, notes: "If we can generate our own technology, and capture the world's highest-quality talent, then we can generate the necessary research to promote good living conditions." Thus, Yachay is a central component of "buen vivir"—the concept of seeing humans as part of the natural and social environment—and with a university at the heart of the city, it is evident that education plays a pivotal role in the country's future prospects.

In order for Ecuador to export education, as Yachay is prepared for, Enrique Ayala Mora, rector of the Universidad Andina Simón Bolívar (UASB), recognizes that the country must first open up to the rest of the world and increase international exposure: "Ecuador is small enough to realize that if it is not part of a unit, there is no future." Institutions like UASB are giving Ecuador the necessary recognition abroad to build it into a destination for education.

An initial focus on internationalization is key to quality education in today's global world, although many universities are looking beyond this by preparing students for a knowledge-based society which ensures success, regardless of the culture or climate: "Knowledge and know-how are the emblem of our university," notes the rector of the Universidad de los Hemisferios, Diego Alejandro Jaramillo Arango. He explains that this type of knowledge is gained by encouraging adaptability in students for the international world.

Open to foreign trade, expanding markets, and diversification of industry—Ecuador may be small, yet the measures it is enacting for growth and a sustainable future are indeed mighty. Slowly but surely, Ecuador is building itself up to be far more than just the geographical center of the world. ■

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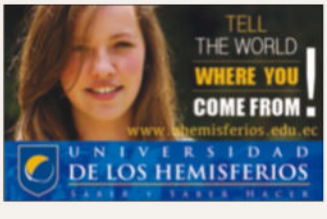

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Grimes learned to play the violin, ukulele and other instruments while recording her new album

MUSIC

Grimes' *Art Angels* hints at pop's dark side

IN 2011, THE MUSICIAN KNOWN AS GRIMES released "Oblivion," an eerie electronic song that was created with Apple's amateur recording software GarageBand and touched on her experience with assault. (Sample lyric: "I never walk about after dark … someone could break your neck.") That's not typical Top 40 fodder, but it made Grimes (born Claire Boucher) an unlikely pop tastemaker—and critical acclaim for her third album, 2012's *Visions,* led to a management deal with Jay Z's Roc Nation and the opportunity to write for Rihanna.

Her follow-up album, *Art Angels,* which was released digitally last month and will have a physical release on Dec. 11, explores her pop side without indulging it entirely. Like her career so far, the album makes distinctions between mainstream and underground irrelevant. For every song like "Flesh Without Blood," with a buzzing guitar riff that would be at home in a Katy Perry track, there's a song like "Scream," which features Taiwanese MC Aristophanes rapping in Mandarin while Grimes howls in the background. The album's split personality is no accident, given that Grimes writes, records, produces and engineers her music. That can be frustrating for fans who wish she'd commit to one side, but it makes her songwriting and sound truly singular (if an acquired taste). Is Grimes a pop star or an auteur? Maybe it doesn't matter—the way she blurs the line between the two is far more interesting than the answer. —NOLAN FEENEY

QUICK TALK

Rick Ross

The rapper will release his eighth album, Black Market, *on Dec. 4 after a roller-coaster year that included his engagement (to model Lira Galore) and a period of house arrest for an alleged kidnapping and assault (the case is ongoing).* —N.F.

You recently remixed Adele's new single, "Hello." That's an unlikely candidate for a hip-hop makeover. I've been a fan of Adele since her first project. She's such a powerful singer, such a powerful voice. I believe it's been [a few] years since the *21* project, so she gave us time to miss her a lot. She came back with the "Hello" record, and when I heard it, it was just like, *Damn.*

How did your time in the headlines shape the album's direction? It most definitely made it a more personal record. I had a lot of time to just sit by myself, so I had a lot more things I wanted to address. One [song] goes by the name of "Ghostwriter." I finally wrote a record telling the way it feels for me to be a ghostwriter, and not only *a* ghostwriter but one of the biggest in the rap game.

You own several Wingstop franchises and actively promote Luc Belaire rosé. Will you expand the Rick Ross brand into a full-fledged lifestyle company? We're most definitely having conversations. If it's a part of the lifestyle that we live, I'm all for it. I was offered a nice seven-figure deal to do business with a cigarette company, but I don't smoke cigarettes, and I don't want that small check to get me to *start* smoking.

You've credited CrossFit with your recent weight loss, and now fans tweet about exercise with the hashtag #RossFit. Is there room for fitness in your empire? Of course. Right now it's all about encouraging. Let's get the movement going. So for everybody that's using #RossFit, let us know how much weight you dropped, how you lookin', how you feelin'. Ladies, dudes—all aboard.

ON MY RADAR

NARCOS

'I was on home confinement for a few weeks, so I got real familiar with Netflix. I love Narcos. *Oh my God, it's amazing. I watched that in, like, three days. It was dope.'*

ROCKIE FRESH

'I think he's gonna be the next huge artist to really take off. A young kid from Chicago. I'm excited for that.'

GRIMES: GETTY IMAGES; ROSS: PARAS GRIFFIN—GETTY IMAGES

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THE PURSUIT OF HAPPY-ISH

The millennial beard: why boomers need their younger counterparts. And vice versa

By Susanna Schrobsdorff

A FRIEND OF MINE, WHO'S A LITTLE OVER 50, MET WITH a big firm about a job recently. The good news was that they loved his ideas. But they said he would have to get someone else to present all his great ideas to clients. In other words, someone who can wear a hoodie to work without irony. Like a business body double. A millennial beard. That way, the company could keep looking young while still benefiting from his deep knowledge of the business and, well, human nature.

The concept isn't as unfair as it sounds. As a late boomer, I have high hopes for this arrangement. We are increasingly codependent generations. Millennials need boomers and older Gen X-ers so they know what to improve on. And we need millennials to get our ideas across. Just ask anyone who's tried pitching a startup to investors without a 20-something on her team. Even middle-aged people don't trust anyone over 30. That's why 40- and 50-somethings fall all over themselves in meetings to show who can most enthusiastically agree with a millennial's idea.

It's a little desperate, our bid for relevance by association. But we oldsters feel insecure without a 20-something as backup, especially when it comes to anything involving the word *content*. Or Snapchat. Or any kind of sharing that doesn't involve food or money. More important, millennials are now the largest, hardest-working sector of the workforce and the most desirable market for most businesses, and we don't want them to turn on us.

At Google, where the median employee age is about 29, the company has a support group for people over 40 called Greyglers. In the blurb about Greyglers, the company notes that they hope to promote "age diversity awareness" at Google and foster the success of their "elders." Yes, middle age is now a special-interest group. This is perhaps why 28-year-old tech gurus fret about losing their jobs to college interns who are cheaper and more current. It's also why Botox is booming in the Valley among some older engineers.

CLOSELY RELATED IS a new corporate trend called "reverse mentorship." That's when millennials take older employees under their wing to teach them how most corporate revenue problems can be solved with a few social-media tricks, and why you shouldn't ever leave voice mails for anyone.

Nonetheless, I'm all for millennial mentors. (And I agree about voice mail.) I used to run TIME's editorial-technology department, back when people used dial-up modems. Since then I've learned to make deals in advance with a millennial to ensure support before I suggest anything vaguely technical in a meeting. You need a millennial front person for an idea to succeed. Partly because when they believe in something, they will put in 7,000 thankless hours to make it happen. Plus, life is so much better when it's infused with the energy of people who aren't hobbled by the memory of what didn't work "the last time we tried that." Turns out, tech knowledge is a lot like online celebrity. It's highly perishable.

AND THAT'S WHERE WE BOOMERS can come in handy for millennials. We've already done all that reckoning. We learned a long time ago that there is always someone younger, thinner and more digital waiting right behind you.

Remember, back in the 20th century, we were the smartest kids in the room. But then we had kids ourselves, and the stakes got higher when it came to careers and relationships. We couldn't just keep trading up or moving on; we had to learn to hold on instead. And work started bleeding into our nights and weekends, thanks to the very technology that everyone still struggles to keep ahead of now. Time was no longer limitless, and it stretched thin faster than we expected.

This new generation will face all that soon enough. Even Mark Zuckerberg, who famously said that "young people are just smarter," might not feel so smart now that his first child has arrived. Babies can do that. Family is the one variable you can't control for. You can't scrap them for a new version. There's no A/B testing or product road map, and the people in your life will be unfailingly unpredictable. You'll often decide to choose their happiness over your ambitions. And they will get sick or die when you don't expect it.

Life is inherently disruptive. You just have to adapt. There's no secret hack, no work-around, no pro tip for that. Except maybe this: to manage the personal hurricanes that will blow your way, you'll need aid and comfort from the people where you work. And that's when a little intergenerational codependence can be a very good thing. ◻

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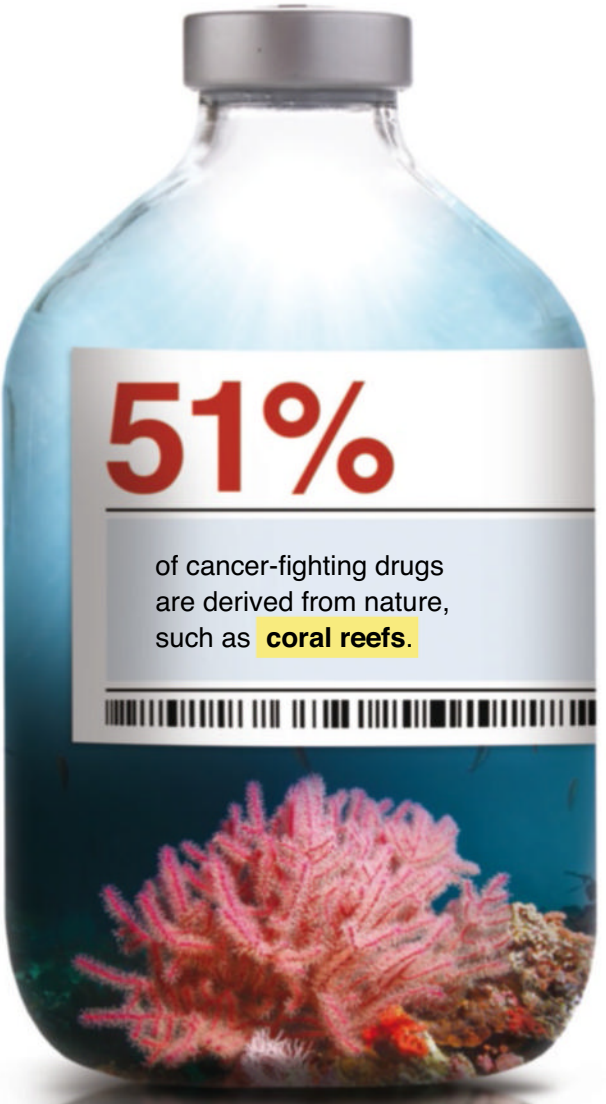

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Tiger Woods The golf champion, who turns 40 on Dec. 30, talks about his recovery from back surgery, his legacy and what he wishes he had known before everything changed

What's a day of rehab like for you now? I walk 10 minutes on the beach. That's it. Then I come home and lie back down on the couch, or a bed.

Do you have any recovery goals after your third back surgery? There's no timetable. And that's a hard mind-set, because I've always been a goal setter. Now I've had to rethink it, and say, O.K., my goal is to do nothing today. I've learned a little bit of it, I think. I know that, one, I don't want to have another procedure. And two, even if I don't play again, I still want to have a quality of life with my kids.

Are you saying that if it does all end because of your injuries, you're O.K.? It's not what I want to have happen, and it's not what I'm planning on having happen. But if it does, it does. I've reconciled myself to it. It's more important for me to be with my kids. I don't know how I could live with myself not being able to participate in my kids' lives. That to me is special. Now I know what my dad felt like when we'd go out there and play nine holes in the dark.

Do you watch golf? I can't remember the last time I watched golf. I can't stand it. Unless one of my friends has a chance to win. I watched Jason [Day] win the PGA. But it was on mute. It's always on mute and I have some other game on another TV.

Your private life was exposed in 2009. What would you have done differently? In hindsight, it's not how I would change 2009 and how it all came about. It would be having a more open, honest relationship with my ex-wife. The relationship that I have now with her is fantastic. She's one of my best friends. We're able to pick up the phone, and we talk all the time. We both know that the most important things in our lives are our kids. I wish I would have known that back then.

You tried to make it work for a while. It was too tough, too tough. But we've worked so hard at co-parenting, to make sure that their lives are fantastic. For instance, I've taken the initiative with the kids and told them, "Guys, the reason why we're not in the same house, why we don't live under the same roof, Mommy and Daddy, is because Daddy made some mistakes." I want it to come from me so that when they come of age, I'll just tell them the real story.

What happened with Lindsey Vonn? We never had time together. It's a relationship that was fantastic, but it just can't work on that level. It was doing an injustice to both of us.

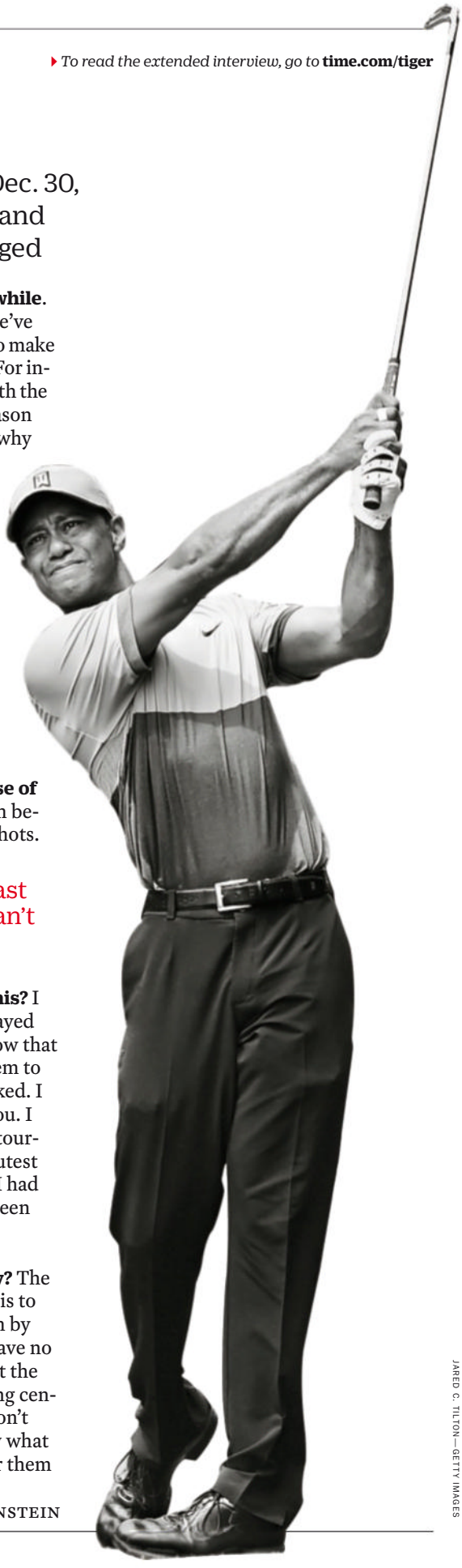
Are you able to maintain a sense of peace? My only peace has been in between the ropes and hitting the shots.

> 'I can't remember the last time I watched golf. I can't stand it.'

When did you begin to sense this? I didn't play for any attention. I played for the hardware. I wanted to know that I beat everyone, and I wanted them to know that they got their butt kicked. I peaked at 11, to be honest with you. I went 36-0 that year, never lost a tournament and I probably had the cutest girlfriend all of sixth grade. And I had straight A's. No A-minuses. I've been trying to get back to that since.

Do you think about your legacy? The greatest thing that could happen is to not be remembered. What I mean by that is, the kids right now, they have no idea who Michael Jordan was, but the Jumpman logo is cool. My learning center, kids go through it and they don't know who I am. They don't know what I've done. But it's a safe haven for them to learn and grow.

—LORNE RUBENSTEIN



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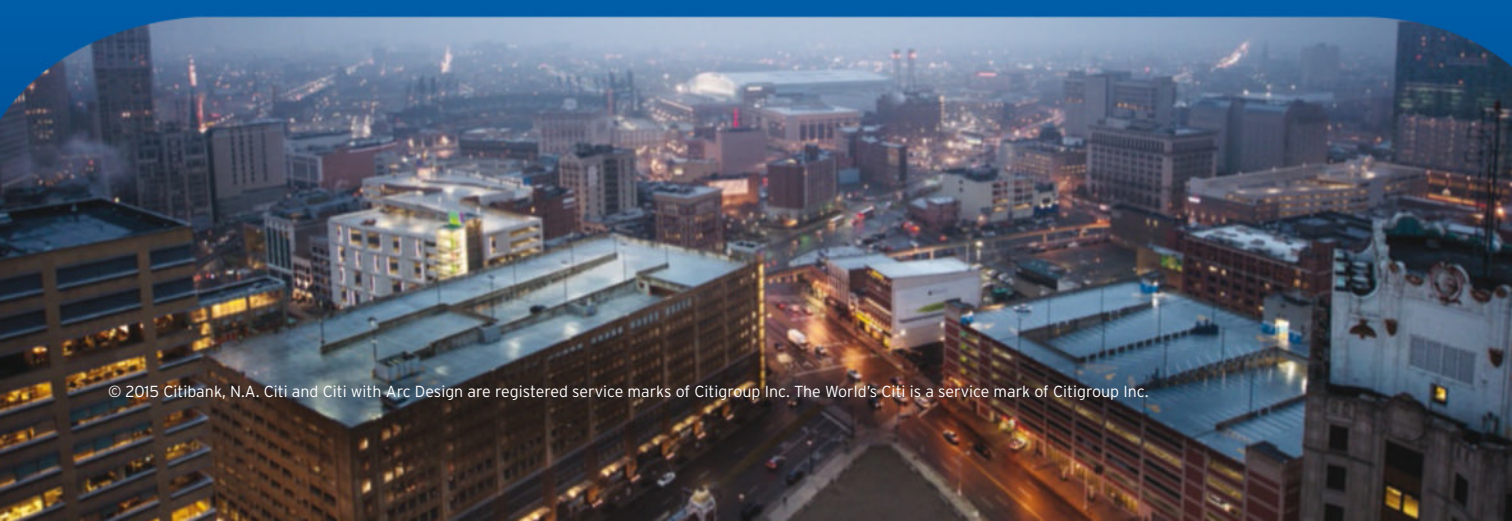

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